

PLANNING APPLICATION REPORT

ITEM: 01

Application Number: 11/00750/FUL

Applicant: MVV Environment Devonport Limited

Description of Application: The construction of an Energy from Waste plant in Her Majesty's Naval Base, Devonport, Plymouth.

The construction of an Energy from Waste plant to the south of a woodland area within the dockyard, with electricity cable connections to the national grid and steam pipe connections into the dockyard, to provide landfill, energy, cost and carbon emission savings for the naval base, dockyard and wider sub regional area. It would comprise of a series of architecturally designed industrial buildings extending for 134m with a large main building (with a 45m high boiler house) and chimney stack (95m high). The proposal would also comprise the construction of a new access road to the Camel's Head junction, new bridge over Weston Mill stream, and a weighbridge. It would also involve alteration of internal dockyard access routes and the construction of a new link road north of the Weston Mill Lake Naval Berth to connect with the dockyard's internal Bull Point access road. The proposal would also include the temporary use of 17,200 square metres of dockyard land for use as the main construction compound during the construction period, to last approximately two and a half years. The main building complex comprises a large tipping hall, boiler house with turbines, storage silos, tanks and cylinders and a row of air cooled condensers. There would also be ancillary administration offices and a community roof terrace and community meeting room as part of the main building complex. There would also be a separate workshop and stores building to the west (10m high). The whole complex would be landscaped with an amenity area provided to the north of Blackies Wood.

Type of Application: Full Application

Site Address: LAND AT NORTH YARD, H. M. NAVAL BASE
DEVONPORT CLOSE TO WESTON MILL CREEK AND
VIADUCT PLYMOUTH

Ward: St Budeaux and Devonport

Valid Date of Application: 23/05/2011

8/13 Week Date:

22/08/2011

Decision Category:

Major Application

Case Officer :

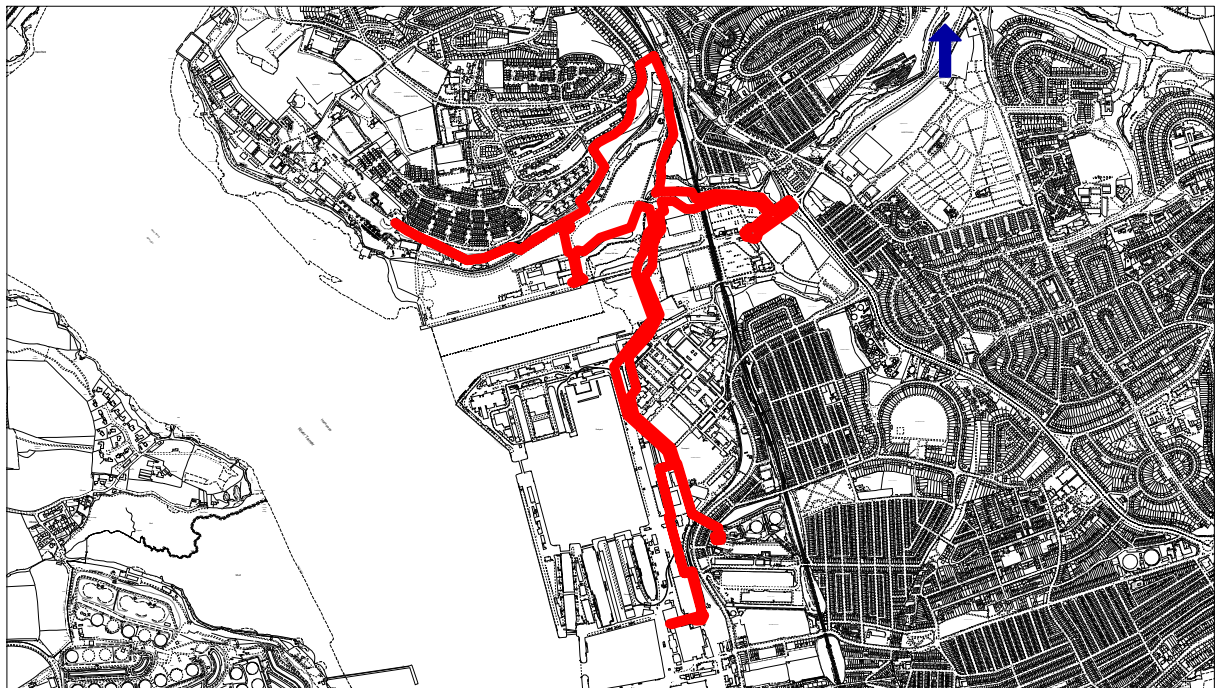
Alan Hartridge

Recommendation:

Grant Conditionally Subject to a S106 Obligation, with delegated authority to refuse in the event that the S106 Obligation is not completed by 31 March 2012

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OFFICERS REPORT
EfW plant –land at North Yard HMNB Devonport
11/00750

1. Summary

2. Introduction and background

Strategic relevance and implication of other schemes in the sub region
Relevance of the SWDWP and the MOD agreements with the applicants

3 Site description and context

4 Proposal descriptions

The Energy from Waste Facility
The building complex –scale and orientation
The Administration and Visitor Centre and nature reserve.
Landscaping and public open space
The Design
Access
Phased construction and employment
The Local Liaison Group and community engagement

5. Range of documents submitted

Further information reports
Accuracy of photomontages

6 Relevant planning histories

On – site
In proximity to the site

7 Consultation/Notification Responses

Responses from Statutory and Technical Consultations
Responses from neighbouring authorities

Representations

8. Supporting Assessments to the determination

Environmental Permit

Flood Risk Sequential Test Assessment

Habitats Regulations Assessment

9. Policy Considerations checklist

Policy relating to European Directives

National Planning Policies

The Development Plan

Energy Policy Guidance

Other relevant policy documents

10. Analysis

Justification of Need and Consideration of Alternatives

The Carbon/renewable energy benefits

Flood Risk

Transportation and Access issues

Economic and Employment issues

Design and Visual Impact issues

Impacts upon the historic environment and listed buildings

Impacts upon the Natural Environment and Amenity issues

Pollution mitigation and Cumulative effects at sensitive locations

Safety concerns

Health and Well Being and Community Benefits

Adequacy of Community Involvement and Need for continued engagement Community Links, Governance and facilities

Equalities and Diversities and Human Rights Act

11 Section 106 Obligations

12 Conclusions

Benefits of the proposal

Adverse impacts of the proposal

Compliance with Development Plan and National policies

Importance of the Section 106

Conditions

Appendices

1. 106 Heads of Terms and Community Infrastructure Levy Compliance Statement
2. Analysis of Letters of Representation
3. Assessment of the applicant's Alternative Sites Assessment
4. Demonstrating compliance with the Flood Risk (PPS25) Sequential Test '
5. Habitats Regulation Assessment
6. W7 and W8 checklist
7. NHS Rapid prospective Health Impact Assessment
8. Draft EA Permit

1. Summary

An Energy from Waste (EfW) plant, suitably sited, by diverting the sub-region's residual waste from going to scarce and increasingly costly landfill and improving the carbon footprint associated with the management of municipal waste disposal, has the potential of being one of strategic significance for the residents and businesses within the sub region.

If located on a brownfield site at North Yard a suitable Combined Heat and Power (CHP) plant also has the potential for helping to reduce the carbon footprint of HM Naval Base Devonport and the Dockyard, reduce energy costs and to consolidate the employment base for the City.

However, without the effective mitigation of potential adverse environmental impacts and securing some enhancements and local community benefits, the development would conflict with the development plan and the material considerations which weigh in its favour would be insufficient to outweigh the policy conflicts and other harms.

In considering this report and the material planning considerations associated with this particular planning application it is recommended that conditional permission is warranted but only subject to the imposition of the recommended conditions and a section 106 agreement which accords with the heads of terms set out in this report.

2. Introduction

In considering the planning issues associated with this particular planning application and in particular the choice of site and likely environmental impacts

1) There are no longer any landfill sites in Plymouth and this particular planning application is in respect of an alternative form of waste disposal that would divert residual waste from being transported into Cornwall for landfill on a 30 mile round trip. The Council in its capacity as a Waste Disposal Authority, working with local authority partners in Devon and Torbay as the South West Devon Waste Partnership (SWDWP), has produced and approved both Outline and Final Business Cases relating to an Energy from Waste Plant. The contractual and financial details associated with this agreement between MVV and SWDWP are not material to the Planning Committee's consideration of the planning issues. The need for the proposal and the justification for the inevitable impacts of the proposal on the area and the environment and its inhabitants, flora and fauna have to be justified on land use planning grounds. It is however, a matter of public knowledge that the applicants have an Agreement for the disposal of residual waste for the SWDWP which could save the authorities around £389 million over the life of the contract, Whilst financial savings to the constituent local authorities are not of themselves a material planning consideration, to the extent that this sum indicates the scale of the reduction in waste quantities that would otherwise be landfilled, it may assist the Planning Committee when considering the issue of 'need' (see section 10).

2).The building site is owned by the MoD and would be leased to the applicants for a period of 45 years if planning permission was granted. The lease term includes a 3 year construction period, a 40 year operational period and then 2 years for demolition

3) The provision of CHP to the dockyard is a key material consideration. To that extent the terms of the contractual arrangements to secure the provision of such CHP are a material consideration. Whilst much of the detail is commercially sensitive and not available to the Council, officers have satisfied themselves as to the terms material to the determination of this application and it will assist the Planning Committee when considering the weight to be afforded to the benefit and the risks of the facility simply becoming an incinerator (see section 10) that the supply of steam and electricity from the EfW CHP plant is covered by two contracts with MOD (for Naval Base) and DRDL (ie Babcock for Dockyard). MVV have confirmed the following:

- All steam and power demand will be provided by MVV to MOD and DRDL, with excess power exported to the grid. Power would be imported from the grid during EfW CHP plant outages
- Steam supply will be up to 23.3 MWth, power up to 22.5 MWe

- MOD and DRDL cannot take power or steam from others
- MVV to build all connections and to reinforce the main steam spine
- 25 year term for the provision of CHP to MOD and DRDL from date of commissioning of EfW CHP plant
- Minimum off take levels of power and steam to enable Good Quality CHP taking account of forward load predictions for combined Dockyard and Naval Base
- Prices fixed in accordance with an escalation formula (20% discount already stated publicly)
- Contract may be terminated by MOD if the dockyard closes, termination payment from MoD to MVV

In considering this proposal the Local Planning Authority has had regard to all of their statutory duties including:

- Section 70 of the Town and Country Planning Act 1990 "determination of applications: general considerations". The purpose of this section is to cover matters to be taken into account when determining planning applications.
- Section 38(6) of the Planning and Compensation Act 2004 requires that 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 consideration indicates otherwise.

3. Site description and context

The entire site for the construction of the main Energy from Waste building and associated roads lies within Her Majesty's Naval Base (HMNB) Devonport within a largely built up area beside the Penzance-Paddington railway line and some 1.5km from the A38 trunk road network and linked to it by the Principal Road Weston Mill Drive (known locally by some as the St Budeaux by-pass). Access to the land identified as the main building site would be from the Camel's Head junction of Weston Mill Drive and Wolseley Road through parts of HMNB Devonport.

The application site covers an area of 13.07 ha largely within the north eastern boundary of the Naval Base. Although this area is urban in character the site includes a woodland area known as Blackies Wood and there are nearby Natura 2000 sites, i.e. areas designated at an International level for their nature conservation value –at Plymouth Sound & Estuaries Special Area of Conservation (SAC), Tamar Estuaries Complex Special Area of Protection (SPA), South Dartmoor Woods SAC, Dartmoor SAC, Blackstone Point SAC and Prawle Point to Plymouth Sound and Eddystone SAC. The site is within 10km of Plymouth Sound & Estuaries Special Area of Conservation (SAC) and Dartmoor SAC. The site is approximately 500m east of the Plymouth Sound & Estuaries Special Area of Conservation.

The eastern edge of the Tamar Valley Area of Outstanding Natural Beauty (AONB) lies approximately 1.3km from the western boundary of the site, across the Tamar.

The Naval Base is part of the City's extensive dockyard complex facing the Hamoaze and the comings and goings of large warships and submarines affect the waterside character of the base and distant views across the Hamoaze from SE Cornwall-particularly from Wilcove and Torpoint and the Torpoint ferry to the south west. A Naval Base helicopter landing site is located to the west of the site and North West of Weston Mill Lake where the dockyard is overlooked from some residential areas of Barne Barton.

The dockyard does contain some features of heritage value, including the grade II HMS Drake Fleet Accommodation group of listed buildings to the south of Weston Mill Lake and the grade II listed 'Mixing House' which is located approximately 300m from the western edge of the site. The Barne Barton housing estates are established beyond the Naval Base to the north and east. The closest dwellings to the proposed building site are at Talbot Gardens to the west, beyond a woodland belt. These comprise apartment block flats arranged on several storeys.

The site of the proposed main building works comprises 2.47 ha of compacted rubble. It is open bare ground edged by scrub made up of crushed concrete, building rubble and other materials that have been deposited over softer inter-tidal alluvial silts overlying shale bedrock to a depth of over 20m during approximately 20 years of dockyard construction projects. The site currently includes mounds of demolition waste. It is surrounded by a secure 3m high fence (with gate) set within the boundaries of the Naval Base, and as such, is subject to the usual protocols for access onto the site.

The immediate surroundings to this area consist of inter-tidal watercourses including the Weston Mill Stream that flows into the Weston Mill Lake, Tamar Estuary (The Hamoaze) and Plymouth Sound. Camels Head Creek and Barne Brake Creek feed into the Weston Mill Stream. A tarmac access road crosses the stream at two points within the site and neither is wide enough for two way traffic. This road crosses through the site on an east-west alignment connecting the Bull point area of MoD stores and workshops and the Naval Base helicopter landing site to the west with the rest of the Naval Base. A large 8m high warehouse depot complex, the Devonport Distribution Facility with loading bays and service yards, is located adjacent to the access road and south east of the application site. There is a steel culvert with unused track crossing the Barne Brake Creek and there are discarded old pipes and other debris within the watercourse. Land to the immediate east of the application site beyond the creek is owned by Network Rail, containing Willow Carr, grassland and marginal salt marsh species. The railway embankment and railway viaduct defines the eastern edge of this disused wetland area. Housing estates are established to the east, north east and south east beyond the railway land and Weston Mill Community Primary School is located at Camels Head to the east.

The application site includes some 4.15 ha of 'Blackies Wood' and areas of green space adjacent to Savage Road to the northwest and west. 'Blackies Wood' is a valuable local landscape feature containing wildlife habitats in a largely urban setting. The wood largely screens the mounds of rubble from views on the edge of the higher level Barne Barton housing estate in the Poole Park Road and Savage Road areas. Views are obtainable by train passengers when crossing the high level Weston Mill viaduct and embankment to the north east and east of the site, by some residents of the Talbot Gardens apartment blocks and from more distant viewpoints including from the hillside of Weston Mill and King's Tamerton residential areas to the north east. The neighbouring hillsides are up to 98 metres Above Ordnance Datum (AOD) and distant views can be obtained across the dockyard complex and Hamoaze to SE Cornwall.

A large mound of crushed rubble (1.72ha) lies to the south of the compound and north of Weston Mill Lake. This is known in the dockyard as "Table Top Mountain" storage area and is also within the application site area as it is would be used for a temporary period during the construction phase. The application site also includes a strip of dockyard land to the west of "Table Top Mountain" and Weston Mill Lake (0.29ha) that would be needed to facilitate construction of an internal dockyard road link.

The site also includes a strip of land to the east (1.74ha), running adjacent to the Weston Mill Creek and beneath an arch of the railway viaduct and towards the Camels Head Road junction of Weston Mill Drive and Wolseley Road. It includes a linear strip of land that is currently part of an existing car park used by MOD personnel and dockyard workers (affecting 150 existing car parking spaces). The application site in this area also includes part of the Camels Head dockyard access road known as North Access Road and part of a coach drop-off bay that has been provided on its northern side.

There are three signal-controlled highway junctions to the east, these being Wolseley Road/Weston Mill Drive, Saltash Road/Wolseley Road and Weston Mill Drive/Carlton Terrace/Ferndale Road.

The morning peak hours on the local highway network extends from 7.00am until 9.00am (with most shifts within the Dockyard starting at 7.30am). The afternoon peak is 4.00pm -5.00pm.

Some 2.45ha of the site is operational land with cables /steam pipes connecting switchgear plant and boilers associated with various buildings within the dockyard and an electricity substation outside the Naval Base. This area of the site includes some existing over ground MoD steam/condensate pipes and the MoD Bull Point 11kv substation to the west. The pipes comprise larger diameter pipes carrying steam to its destination and smaller diameter pipes carrying the condensate back to the boilers. Some redundant pipes beneath the B3396 Saltash Road could also be brought into use for cable ducting. These are located north west of the north intake 33/11kV electricity substation within Goschen Yard, north of the Goschen Centre, (across from and outside the Naval Base area).

The application site for the building is outside the MoD's dockyard explosive safeguarding zone.

4. Proposal Description

Details of the proposals relating to the ash residue, liquid effluent, proposed activities within the Tipping Hall and Bunker and materials to be stored were provided by the applicants subsequent to the original submission, as part of the additional information required by the Local Planning Authority.

The Energy from Waste Facility

The planning application is for the construction of what is called an Energy from Waste (EfW) plant, perhaps more generally known, particularly in letters of representation by some groups and individuals, and by local reporters, as an incinerator.

The primary purpose of the proposal is to produce power from a steam turbine linked with an incinerator processing up to 265,000 tonnes per annum of waste diverted from landfill, waste that cannot be recycled, reused or composted, known as residual waste – and also some commercial and industrial waste. Flue gases would be cleaned using a dry reagent injection system (known as the Air Pollution Control system). Vapour with treated flue gases would be released into the atmosphere via a 95m steel chimney stack. The EfW facility would provide renewable energy, in the form of combined heat and power (CHP) for 30 years (and the applicants' state that the life expectancy of the facility is approximately 40 years).

The waste would be primarily Municipal Solid Waste (MSW) from southwest Devon authorities, but there would also be some Commercial and Industrial Waste (C&I) from local businesses in the surrounding area. The waste would be combusted and the heat would be used to generate steam. The steam would drive a steam turbine and generate renewable electricity for use at the facility, to supply Devonport Dockyard and Her Majesty's Naval Base (HMNB) and for any excess to be exported to the grid. Electrical power would be exported from the turbine via an 1180m length of new cable that would be installed through the dockyard and beneath the Saltash Road connecting the EfW plant with a proposed new switchgear building adjacent to the 33/11kv north intake substation within Goschen Yard. This links back into the Devonport Dockyard electrical distribution system and enables excess to go to the grid by a 33kv connection to the Western Power distribution network.

Some steam would also be extracted from the turbine and fed into the Devonport Dockyard and HMNB steam network to be used for heating purposes (23.3 MWth).

The proposal involves the replacement and installation of new steam and condensate pipe work to connect to the existing system.

Solid residues would be left in the form of incinerator bottom ash (IBA), which would be transported off site by road in covered vehicles for recycling and flue gas cleaning residue (by-products of the Air Pollution Control system), which would also be transported off site by road in sealed tankers to a licensed hazardous waste landfill. Metals would also be recovered for recycling off-site.

It is envisaged that the IBA would be transported to a quarry site close to Buckfastleigh and a planning application has been submitted to the relevant

Local Planning Authority (Devon County Council) but has still to be determined. Processed aggregate can be used in road building and in the construction industry. The applicants' current proposal on this is as follows:

"MVV is committed to finding a solution to processing IBA in an environmentally responsible manner which maximises the substitution of naturally won mineral aggregates, increases recycling of metals and avoids landfill. Other than the facility proposed at Buckfastleigh there are other sites which are capable of handling IBA within or with minor modifications to their current planning consents and environmental permits, and which do not change the basis of the statements made in the EfW CHP plant planning application. These cannot be disclosed at the present time for commercially confidential reasons"

All on-site waste, residues, products and other materials would be stored in designated on-site storage areas, bunkers or containers.

The EfW's combustion process would be designed to operate continuously for 24 hours per day, 7 days a week but with short periods of planned shut-down. There need to be planned shut-down periods to facilitate essential repairs and maintenance at such plants. This is expected to last for a maximum period of 21 days each year. Unforeseen operating problems/breakdowns could also occur requiring a plant shut-down. To avoid waste being diverted to landfill during these periods, there would be 10 days storage capacity within the waste bunker as well as 18 days capacity within the bale store making a total storage capacity of 28 days within the Main Building (a margin of 33% added for possible longer term outages beyond the 21 days envisaged). There would be a baling process for the stored waste with screening and baling equipment associated with the bale store. The waste would be sorted and compressed into bales measuring approximately 1.5 sqm and wrapped in plastic film to seal against air and pests for the internal storage. When the plant became operational again, following any maintenance/ repair work, the bales would be ripped open and the waste mixed and fed into the incinerator.

The building complex –scale and orientation

The applicants state that the architectural design of the facility was developed having regard to the landscape of the site and surrounding area, a study of the urban design of the dockyard and surrounding area and extensive consultation with professional bodies and the local community. As this proposal would involve construction of one of the largest buildings in the City an understanding of the applicant's design approach is an important material consideration. A description of the way in which the applicants evolved their design is given in their Design and Access statement and a commentary is also given in this section of the report below.

The facility would comprise the following principal components:

Tipping hall; Waste bunker hall; Bale store; Turbine / boiler house (the largest part of the Main building where the main incineration process would take place on a grate); Air pollution control system, including 95m high chimney; Bottom ash collection area; Air cooled condensers; Water treatment plant

building; a continually manned Central control room; an Administration block ; a Workshop and stores building 10m high at the western edge of the site for the storage of equipment and chemicals; a Transformer compound for the export of electricity from the facility; an Emergency diesel generator enclosure; and Electricity cables and switchgear building, and steam and condensate pipe work, for upgrading and connection to the relevant networks. The footprint of the Main building itself would cover approximately 6,200m² and together with small auxiliary buildings and equipment the proposed floorspace is approximately 9,000m².

The Main building would be a large industrial building (Kingspan micro rib-panelled) punctuated by some areas of green, blue, red coloured cladding and adorned with weathered steel 'Ribs'. It would stand 45m high at the highest point and it would be 134m long, with a width varying between 30m and 81m with a cylindrical steel exhaust stack 95m high and 2.71m in diameter. The stack would be at northern extremity of the building close to a battery of air cooled condensers and it would be dark grey at the base and graduated to light grey at the apex.

The orientation is designed to optimise the relationship of the main building with the nearest residential area and to minimise the visual impact of the building (and a number of cross sections have been provided to illustrate the relationship of the main building to its surroundings). The applicants state that the plant has been designed to minimise operational noise levels with a selection of low noise plant items, wall and roof cladding constructions, and acoustic attenuation ventilation openings. The base ground level would be kept low, mindful of the topography, with a cut and fill balance that would minimise the removal of any material from the site during construction. The primary noise source from site operations is likely to be the air cooled condensers, which would be situated at the north eastern side of the building, away from the nearest residential properties at Talbot Gardens and Savage Road and facing the Network Rail Willow Carr and railway embankment to the immediate east of the application site beyond the Creek. The ramped access to the Tipping Hall entrance would also be sited away from these dwellings on the south eastern elevation.

A concrete transformer station (8.9mx8mx5.5m high) and emergency generator would be sited between the main building and Blackies Wood and a 10m high grey clad workshop /stores building (15mx38m) with a wildlife-friendly "brown roof" would be constructed to the south west of the main building and car park and there would be an external maintenance lay-down area associated with it adjacent to the site boundary at the western end of the proposed complex. The main access doors of the building would face away from Talbot Gardens apartment blocks. These blocks stand beyond a narrow strip of scrubland and trees to the north west of this building.

The applicants state that no more than two trees would be felled to accommodate the facility.

The Administration & Visitor Centre and Nature Reserve.

The main building would include a 4 storey high administration block towards the southern end which would contain offices, staff welfare facilities and meeting rooms. Although it would be constructed as an integral part of the Main building, there would be a separate entrance to the block which would be glazed and face west.

A community area or visitor centre, would accommodate meeting room / classroom facilities with a ground floor lecture theatre. It would include a 55sqm community area/exhibition space for artwork. There would be a roof terrace covering the 16.1m high block, surfaced with material that would provide a biodiversity enhancement and including 4 rows of photovoltaics (20 panels); timber seating, planting and sculptures. The terrace would enable visitors to view the facility and the dockyard and explanation boards are proposed to describe the activities and points of interest. The applicant's intention is to enable visitors to learn about sustainable waste management, sustainability issues and the historic dockyard. The applicants state that the administration centre would be staffed by a local community liaison officer, who would arrange bookings and co-ordinate access to the community.

Landscaping and public open space

The proposal also includes the provision of landscaping and this would include tree planting to reduce the visual impact of the buildings and access road and the provision of a 'Savage Road' amenity area with an informal sports pitch and recreation area. 'Blackies Wood' is recognised by the Council as a Biodiversity Network Feature and Local Greenscape Area and the applicants state that the woodland would be managed for biodiversity, and that it would form an educational resource for groups visiting the facility, including local schools. There would be controlled access to the woodland and to proposed viewing areas over the tidal creek adjacent to the eastern boundary of the site which would also be for use as an educational resource.

A sculpture is proposed as an entrance feature on a pocket of land above the Camels Head Creek west of the Camels Head junction and Weston Mill Community Primary School.

The Design of the Building

The Design Constraints

The building has been designed in the first instance to enclose the very large scale energy from waste operating plant that sits within it. The form and scale of this building therefore is very much informed by its function.

The applicants maintain that the proposed large scale operating plant (the 'machine') has been highly engineered to be the most modern, efficient and effective technology of its kind at this point in time meeting the demanding engineering requirements of the physical processes that take place within it, and to conform within the exacting requirements of the various environmental and public protection regulations under which it would operate. It is understood from the applicant that the machine's design and the constraints it presents are fixed; there being no reasonable smaller scale alternative. The applicants state that the layout of the building follows a logical linear pattern running from south west to north east which represents the progression of waste being processed by 'the machine'. In very simplistic terms at the

extreme south west of the building the waste arrives at the plant by vehicle, and as the waste moves through consecutive stages eastwards; it is processed, the energy is recovered, the emission gasses are treated to remove the harmful elements and finally at the extreme north east of the building vapour and treated gasses are released at high level via the chimney stack. The applicants state that this therefore dictates the basic three dimensional limits of the proposed building and its layout.

The applicants' architect, and landscape architect, have worked together to address the demanding issues which these physical requirements give rise to and have chosen a design strategy which wraps the 'machine' as tightly as possible so as to minimise its mass and a landscape strategy which uses the available site, the surrounding landform and existing vegetation to optimum advantage, so as to reduce as much as it is possible the visual impact of the proposal upon surrounding residents, the landscape and upon key views. As a result the basic design solution that is proposed as part of this particular planning application takes the form of a series of rectangular boxes which are arranged on site following the same linear format running south west to north east as explained above for the waste process.

The applicants point out that the main building is positioned into the landscape to take advantage of the site's lowest levels and positioned such that the surrounding landform and existing vegetation reduces as much as possible the extents of buildings as seen from the closest residents. Because of the likely significant visual impact in its context and in recognition that no conventional landscape methods could be reasonably be applied to screen or hide this proposal within this environment the applicants state that they determined that the architectural quality of this building was going to be of particular importance with a landscape design proposal to complement it. The applicants rely on the quality of the design as mitigating the effects that this scale of development would otherwise have.

Before developing their design ideas in any detail the applicants' design team sought pre-application guidance from the local planning authority who signposted them to the most relevant documents, objectives and policies within Plymouth's Local Development Framework in respect of the design.

The Applicants' Design Response

The applicants point out that their design team have transformed the basic engineered format of rectangular boxes and developed it into an architectural solution with a strong nautical concept using shapes and colours taken from ships. The shapes used include angular bow elements and curved stern sections for walls and enclosing envelopes. A series of curved external supporting columns would run around the building and mimic the curved rib members of a ship's hull. The designers state that they have used these shapes to disrupt the simplistic rectangular engineered forms 'that wrap the machine' in order to break up its scale and linear arrangement, but they also say they have used them to create a unique design derived from its location.

The colours that have been used in the design are primarily a series of grey bands. These would cover the majority of the structure arranged so that the darkest would be at low level and the lightest at the top interrupted by a number of bright accent colours used for smaller elements of the building. Both these flashes of colour and the greys would take their reference from the

colours used on warships. The greys being from naval superstructure and the primary colours from pennants, and flags flown from the various masts in the Dockyard and on the Tamar. The designers say they have used these colours to complement the building's unique design and help reduce its visual impact. The use of a gradual change of greys from dark to light would anchor the building to its site and merge it with the sky above, and the use of the bands of grey would further help to break up the scale of the building. Colour would be used in strip lighting the eastern face of the main building at night.

The design team also developed their landscape strategy in the form of a masterplan to integrate the proposed development into its landscape setting, whilst at the same time minimising the adverse effects on landscape character and views. These measures would include:

- The positioning of the building within its site using the most advantageous orientation and site levels;
- The development of on site planting to break up the scale, form and massing of the building for the lower levels of the structure;
- The inclusion within the development site of Blackies Wood to the north, as a buffer and a backdrop and to screen some of the proposed building, particularly the lower elements;
- New planting within the Wood together with its active management designed to secure the Wood's health and effectiveness long term whilst at the same time providing a gain in the biodiversity and providing managed access for the public;
- Landscaped informal kickabout space along Savage Road and improvements to the current sloping, open green space for public use;
- New tree planting along Savage Road to foreshorten closest views from properties in Barne Barton helping to break up the visual impact of the building;
- A Section 106 mechanism to provide off site planting to mitigate and enhance the local and distant views of the development;

The applicants consider that they they have created a unique design response generated directly from the sites location, making reference to the site uses and heritage to provide a high quality landmark feature building as the Council's various policies and guidance seeks.

Access

The proposed facility would generate a daily total of 264 two-way HGV trips on the local highway network. It is envisaged that in exceptional circumstances there may be times when this overall figure is exceeded - during periods of inclement weather etc. Of these trips just over 60% relate to the movement of municipal solid waste by Plymouth City Council Refuse Collection Vehicles (RCV's) and HGV bulkers delivering bulked-up waste via the A38 and Weston Mill Drive from the various areas that make up the South West Devon Waste Partnership (West Devon, Teignbridge, Torbay and South Hams). With regard to Plymouth RCV's, the route that they use to access the site would depend on the bin round they were undertaking for that day. On the basis of data provided on current collection rounds, it has been forecast that approximately 40% of these vehicles would arrive via the A38/A3064.

The morning peak hour in terms of arrivals at the EfW plant would be between 10.00 and 11.00am with 34 two-way trips (which equates to 1 HGV arriving every 3.5 minutes). Deliveries of Commercial and Industrial (C&I) would be encouraged to take place during the quieter periods of operation. Financial incentives would be offered by MVV to encourage this to take place. Based on the amount of C&I waste the facility has the capacity to process, the plant is expected to generate 74 two-way HGV movements relating to C&I waste on a daily basis.

The tipping hall within the building would provide 5 bays in total, with a traffic light system directing drivers to the most appropriate bay depending on the type of vehicle.

The by-products of the incineration process would be transported away from the site in HGV's that have a capacity of 20 tonnes. It is expected that these movements would total around 30 two-way trips (15 arrivals and 15 departures) per day. In addition to the above there are also HGV trips associated with the delivery of materials required for the treatment of flue gases (Urea, Bicarbonate etc). These trips would total less than 1 HGV movement per day.

The EfW facility would generate car trips associated with staff working at the plant. There would be 35 full-time staff employed at the plant (which would operate on a 24 hour shift-working basis) of which there would be 20 staff on-site during 'office hours'. The number of traffic movements generated by staff movements would be 11 arrivals between 8.00 and 9.00am and 9 departures between 4.00pm and 5.00pm.

A total of 51 car parking spaces would be provided for staff and visitors, including 2 disabled places, and there would be 5 spaces for motorcycles, 10 spaces for bicycles and a coach parking space.

In order to provide access into the site, a new junction is proposed on the private section of the north access road which serves the Dockyard entrance at Camels Head. An entrance sculpture would be provided close to this new junction. A dedicated signalised right turn lane would be provided for waste vehicles turning into a new site access road that would be constructed across the edge of the existing car park and under an arch of the viaduct. It is proposed to physically link the operation of this new junction which would serve the EfW plant to the existing traffic signals at the Wolseley Road/Weston Mill Drive junction to ensure efficient operation of both junctions and avoid unnecessary delays to traffic exiting the dockyard. Pedestrian crossing facilities across an arm of the junction would also be improved. A new combined footway/cycleway is proposed along the southern side of the new access road from its junction with the Dockyard north access road up to the entrance into the new facility. The proposal would also include the erection of 3 lengths of acoustic barrier fencing north of the access road, two lengths at 2.5m high and one at 3m high (a close-boarded fence was suggested). A security gate would be erected across the new access road, close to the proposed junction with the existing dockyard access road. A new steel and concrete 18m clear-span bridge sufficient to take traffic in both directions at

the same time would be constructed to replace the two existing crossings of the Weston Mill creek and two weighbridges and a gatehouse would be constructed on the internal access road nearby to the east of it. Whilst unlikely to be required on a regular basis, the upper section of the site access road would be wide enough to provide 165m of stacking capacity which could accommodate up to 16 RCV's or 10 bulkers waiting to be unloaded to avoid interference with traffic on the Dockyard north access road.

EfW traffic would not need to pass through MoD security checks and a 3m high mesh security fence with barbed wire topping would be erected so that the EfW plant complex would be discrete from HMNB dockyard activities. A new dockyard link-road would be necessary within the Naval Base at the outset of any development as the current access route to Bull Point stores and workshops would be truncated by the development. To ensure that the Naval Base retains its own circulation within the secure perimeter, and to facilitate secure access to the proposed marine landing craft site to the west, an access road to Bull Point would be built from the existing access road adjacent to the Weston Mill dock access roads within the western edge of the application site (0.29 ha).

Phased construction and employment

The proposal includes the temporary use of 17,200 square metres of dockyard

land ('Table top mountain') for use as the main construction compound during the construction period, taking approximately 35 months (including the mobilisation, main construction and commissioning phases), between early 2012 and late 2014.

There would be two main stages to the construction of the proposed development:

Stage 1 – comprising the main site access road, Bull Point access road, construction compound, and erection of a new security fence on the inner boundary of the site which would become the MoD Dockyard security fence during construction. If planning permission is granted, Stage 1 of construction would commence at the end of January 2012 and be completed at the end of April 2012.

Stage 2 – comprising the EfW CHP facility. This would commence at the end of April 2012 and be completed in approximately September 2014.

The applicants state that the number of staff would vary during the construction period from a peak of approximately 309 in October 2013 to approximately 35 at the end of the construction period. The Goschen Yard car parking area would be utilised during the construction phase as it has capacity for 280 vehicles and a dedicated shuttle bus service linking it with the construction site would be provided.

Electrical power during construction would be obtained by routing a new cable to the existing Bull Point MoD 11kv substation to the west of the site and south of Furse Park.

The Local Liaison Group and community engagement

The applicants established a Local Liaison Group and have given regular updates upon their intentions and proposals. The group (approx 20 members) have discussed issues with interested parties, visited an Energy from Waste plant in Sheffield and the Chelson Meadow Recycling site in the city and given feedback to the applicants. The applicants have produced 3 newsletters to date sent out to 20,000 households in the nearby area and have maintained up to date information on their website. The applicants have also provided an open office with information about the application for the public and have held a series of drop-in sessions at local libraries and community centres. This has included 10 exhibitions in February and a further 9 in July, and a further 16 additional drop in sessions through August to November. A model has been on display at some of the events, at the Civic Centre and at the MVV Offices.

5. Range of documents submitted

5.1 Planning Application and Environmental Statements submitted in May 2011

The EfW CHP facility project is subject to an **Environmental Impact Assessment (EIA)**. The EIA procedure is set out in the Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999 which continue to apply to the application notwithstanding the coming into force of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (SI No 1824) given the date of the application. The EIA procedure requires the developer to undertake certain environmental studies and compile an **Environmental Statement (ES)** describing the likely significant effects of the proposed development on the environment and proposed measures to mitigate these effects. The applicant's planning and environmental consultants submitted the ES on **23 May 2011**. The following documents were received, advertised and consultees were contacted for their views:

Planning Application Supporting Statement

Comprises: Design and Access Statement – Statement of Community Involvement – Climate Change and Sustainability Statement (incorporating BREEAM and WRATE Assessments) – Energy, Economy, Employment and Education Benefits Statement – Health and Wellbeing Assessment – Habitats Regulations Assessment – and Planning Policy Analysis. The supporting documents also include a Draft Heads of Terms
Environmental Statement also submitted with the above document

Volume 1 – Main Text - Volume 2 – Figures - Volume 3 – Appendices which comprise

Assessments in respect of EIA Legislation and General Methodology; The Need for the Proposed Development; Land Use: the Site and Surrounding Area; Alternatives to the Proposed Development; Description of the Proposed

Development; Ecology and Nature Conservation; Landscape and Visual; Cultural Heritage; Contamination: Land and Water Quality; Hydrology, Hydrogeology and Flood Risk; Traffic and Transport; Air Quality; Noise and Vibration; Construction Waste; Daylight, Sunlight and Overshadowing; Socio-economics; Health and Wellbeing; Inter-relationships and Cumulative Effects; Volume 4 – Non-Technical Summary.

5.2 Planning Application and Environmental Statement Further Information Submitted in September 2011

A meeting for stakeholders and consultees was held by the Local Planning Authority on the 15th June to assist in an understanding of the scope of response expected in respect of the above statements and assessments associated with planning application. A **physical model** of the proposals was requested and the applicants agreed to provide an updated **3D model** of the proposal with animated fly through to assist understanding of the scale and character of the proposed complex. (Both were subsequently provided together with a video of the proposed baling operations that would take place within the main building at certain times).

Mindful of the initial comments from consultees and local residents about the adequacy of the statements and assessments submitted with the application, further information was formally requested under the provisions of **Regulation 19** of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (on **1 July 2011**) A detailed list of specific requests for further information was provided but in summary further information was required in respect of the following matters:

- Alternatives studied and reason for the choice.
- Adequacy of the data required to identify and assess the main impacts.
- Adequacy of the measures envisaged to mitigate significant adverse effects.

The following additional information was then received in response. It constitutes a supplement to the documents submitted with the planning application in May 2011. This was advertised and consultees were contacted for their views:

Planning Application and Environmental Statement Further Information (Regulation 19 response)

Volume 1 - Main Text and Appendices

Comprises: Introduction and Executive Summary; 'Map' of Responses to Request for Further Information; Planning Application Drawings Further Information; Planning Application Supporting Statement Further Information upon Design and Access Statement – Statement of Community Involvement – Climate Change and Sustainability Statement Energy, Economy, Employment and Education Benefits Statement – Health and Wellbeing Assessment – Habitats Regulations Assessment –and Planning Policy Analysis including new clauses for a Section 106 Agreement Draft Heads of Terms;

Environmental Statement Further Information comprises the following : EIA Legislation and General Methodology; The Need for the Proposed Development; Land Use: the Site and Surrounding Area; Alternatives to the Proposed Development; Description of the Proposed Development; Ecology and Nature Conservation; Landscape and Visual; Cultural Heritage; Contamination: Land and Water Quality; Hydrology, Hydrogeology and Flood Risk; Traffic and Transport; Air Quality; Noise and Vibration; Construction Waste; Daylight, Sunlight and Overshadowing; Socio-economics; Health and Wellbeing; Inter-relationships and Cumulative Effects; Summary; Non-technical Summary

The appendices comprise: Response to Letters of Representation ;Revised Planning Application Drawings; Landscape Masterplan Revision; Site Access Right Turn Option Revision B; Site Access Long Section Revision A ; Drainage Layout Plan Revision E; PA 21-1 Drainage Layout Plan – Bull Point Access Road Detail; Letter from South West Design Review Panel Creating Excellence; Statement of Community Involvement Addendum; Letters of Support from the MOD and Babcock; MVV's CHP Quality Certificates; Sustainable Community Energy Initiatives Scoping Report; Letter of support and indicative Programme of Engagement with University of Plymouth; Letter of Support and Indicative Programme of Engagement with Plymouth City College; Letter of Support Career Transition Partnership; Draft Job Advertisement Apprenticeship; Job Description Community Liaison Manager; Job Advertisement Secretary; Habitats Regulation Assessment – Revised Figure 1 – European Sites; Revised ES Chapter 5 – Alternatives; Revised ES Appendix 5.1 – Alternative Site Appraisal; Piling Sequence ; Revised ES Appendix 7.7 – Ecological Management Plan; Extract from Plymouth City Council Local Development Framework Core Strategy; Plymouth City Council Sites of Nature Conservation Value; Marine Inter-Tidal Baseline Survey; Volume 2 – Landscape and Visual Appendices; Photomontage from HMS Drake; Ground Gas Assessment; Sequential Test Letter; Dockyard Egress During an Extreme Flood Event; Proposed Access Route in the Event of Flooding; Outline Drainage Strategy; Volume 3 – Transport Appendices; Air Quality Monitoring Survey Update Report; Environmental Permit Extract; Devon County Council, Plymouth City Council and Torbay Council Vehicle Fleet Information; Additional Construction Noise Predications and Assessment; MVV Commissioning Information; Noise Levels During Baling Operations; Noise Levels During Shutdown With and Without Baling; Typical Third Octave Band Data for Air-Cooled Condenser Fans and Recooler Fans; Octave Band Levels at Receptors; Louvres; Noise Receptors to the South and South East of the Proposed EfW CHP Facility; Noise from HGVs Queuing on the Access Road; Ambient Noise Monitoring for Construction and Operational

Road Traffic Noise Assessment; Noise Non-technical Summary; MVV's Response to the Letters of Representation

Volume 2 – Landscape and Visual Appendices

Comprises: Revised Landscape and Visual Impact Assessment; Revised Chapter 8: Landscape and Visual; Revised ES Figure 8 Series: Landscape and Visual; Revised ES Appendix 8.1: Landscape and Visual Impact Tables

Volume 3 – Transport Appendices

Comprises: Plymouth City Council Traffic Consultant Audit of Junction Models; Technical Note -Signal Modelling; Technical Note - Percentage Impact; Current Plymouth City Council Vehicle usage at Camel's Head and Carlton Terrace/Ferndale Road Junctions; Operational Implications on the Highways Agency Network; Technical Note - Accident Record at the Weston Mill Drive/A38 Junction Complex; Technical Note - Supplementary Waste Miles Assessment; Technical Note - Signal Modelling 2

5.3 Planning Application and Environmental Statement Further Information submitted 11th November 2011

Following analysis of the submitted information and consideration of the views of residents and consultees, a request for further clarifications and corrections had to be made by the Local Planning Authority. In response, further information was submitted to the Local Planning Authority in November 2011. This was again advertised in the normal way as it constitutes a further supplement to the documents submitted with the planning application in May 2011 and also to the Further Information report submitted in September 2011.

Accuracy of the photomontages

The erection of a crane at the site on 4 November 2011 enabled the accuracy of the photomontages to be checked. During this exercise it became apparent that there was a discrepancy between the heights of the chimney and main building shown in the photomontages and the heights as indicated by the crane jib and hook. The applicants' agents point out that the computer model used to prepare the photomontages had assumed that the future ground level of the site was 5mAOD, when it would actually be 9mAOD. They state that "The consequence of this is that the photomontages had unintentionally underestimated the height of the chimney and main building by 4m. It has therefore been necessary to update the photomontages and re-submit them, so that City Council officers and Planning Committee Members, statutory and non-statutory consultees and the public have accurate information".

This additional package of further information received included the following matters:

Access road drainage; Height of the proposed chimney and main building – associated assessments and photomontages; Statement concerning

alternative locations for incinerator bottom ash processing; and a further Safety Assessment supplement. In order to facilitate understanding of the proposed development in relation to the surrounding area, in particular the proximity to the residential properties in the nearest Talbot Gardens apartment block, additional Landscape Section drawings were also submitted with this package of further information below.

The following documents were received 11th November, advertised and consultees were contacted for their views:

Planning Application and Environmental Statement Further Information

Main Text

Comprises: Introduction and availability; Planning Application Drawings Further Information; Planning Application Supporting Statement Further Information including Section 106 Agreement.

Environmental Statement Further Information comprises the following: EIA Legislation and General Methodology; The Need for the Proposed Development; Land Use: the Site and Surrounding Area; Alternatives to the Proposed Development; Description of the Proposed Development; Ecology and Nature Conservation; Landscape and Visual; Cultural Heritage; Contamination: Land and Water Quality; Hydrology, Hydrogeology and Flood Risk; Traffic and Transport; Air Quality; Noise and Vibration; Construction Waste; Daylight, Sunlight and Overshadowing; Socio-economics; Health and Wellbeing; Inter-relationships and Cumulative Effects; Summary; Non-technical Summary

The appendices comprise: Further or Revised Planning Application Drawings including a Construction Works Phasing Plan; Safety Analysis; Replacement Photomontages; Schedule of Replacement Photomontages; Sketch Showing Details of Drainage During the Construction Phase; Calculations Validating the Size of the Drainage Grip; Construction Timetable; Water Monitoring Management Plan.

5.4 Planning Application and Environmental Statement Further Information submitted 18 November 2011

Scale corrections to two drawings and an updated schedule of documents and drawings were also received:

Proposed North-East Elevation (scale corrected); Proposed South-West Elevation (scale corrected); Schedule of Planning Application Drawings.

5.5 Draft Section 106 Heads of Terms submitted on 21st November 2011

Following consideration of the views expressed about aspects of the proposal, the applicants agreed to update the information relating to the planning obligations that they would be willing to agree to. This constitutes a further supplement to the documents submitted with the planning application in May 2011, September 2011 and earlier in November and these were advertised (see section 11):

The views of consultees and principal concerns raised in letters of representation are to be found within section 7. However all letters are available to read in full on the planning website.

6. Relevant Planning Histories

6.1 On-site

00/00997 –Tipping and filling of land to provide utility area for storage and vehicle parking –Permitted Oct 2000

04/01974 – Temporary use of land for the storage of materials and plant, sorting of demolition materials and erection of concrete crushing plant – Temporary permission granted December 2004 until December 2008.

11/ 01300 - Temporary test piling works -8 weeks of piling operations (with a further four weeks for evaluating the results).—temporary permission granted October 2011.

6.2 In proximity of the site

The Naval Base Helicopter Landing Site to the north west of Weston Mill Lake

99/01172/C1884 - Variation to previous DOE Circular 18/84 consents 114/94 and 1027/96 to allow an increase in the number of helicopter flights to a maximum of fifty flights per month and a maximum of 500 flights per annum - No Objection Dec 1999.

The Devonport Distribution Facility with loading bays and service yards, south east of the application site ----

03/00091/C1884 - Erection of building, for use as stores distribution facility, at Camels Head adjacent to main entrance to Naval Base. - No Objection April 2003

Devonport landing craft co-location projects (DLCCP) to the west of the site==

11/00634/FUL - The erection of two buildings to provide headquarters, engineering and training facilities. Construction of a marina including pontoons and berthing areas at the eastern end of Weston Mill Lake and a slipway and jetty at the western end. Associated works including a hardstanding area for boat storage, improvements to an access road, replacement vehicle parking, dredging and foreshore improvements, lighting and regrading/realignment of fencing - Granted Conditionally May 2011

Help for Heroes project .Part of the project involves construction of a rehabilitation centre to the south east of the site and east of the Wyvern Sports Centre --- 11/00589/FUL Rehabilitation centre to include swimming pool, hydrotherapy pool, gymnasium, changing rooms and associated landscaping - Granted Conditionally July 2011

7. Consultation/Notification Responses

7.1 Responses from Statutory and Technical Consultations

Environment Agency (EA)

Following the receipt of further information, the proposals are now considered **acceptable** provided planning **conditions** can be included to ensure flood and environmental risks are appropriately managed and a **Section 106 agreement** is updated appropriately to maximise environmental improvement to the adjacent Barne Brake Creek. Details of their recommended conditions and aspects to be incorporated into the Section 106 agreement are reflected in the recommendation of this Committee report.

The Environment Agency originally requested additional information regarding ash residues, the tipping hall / waste bunker, liquid effluent, materials storage, and construction method statements. The EA then advised more recently that further information and clarification was needed in respect of three topics –

Access and Egress details to illustrate a viable safe access route from the proposed development to the public highway during periods of extreme flooding.

Whilst the site of the proposed EfW plant lies within Flood Zone 1, the access is located within Flood Zone 2 defined by Planning Policy Statement (PPS) 25 as having a medium probability of flooding.

Surface Water Drainage details to illustrate the location and sizing of key features as this is a detailed planning application and the applicant has indicated a desire to avoid pre-commencement conditions on stage one of the proposed works.

General Watercourse Improvements in respect of the creek to the east of the proposed site (outside the application site) has the potential to be improved by this development by removing manmade debris from the channel and by removing the length of the culvert (which appears to be redundant) to restore inter-tidal habitat.

The EA also previously pointed out that their Biodiversity Officer required more **Biodiversity** information and clarification concerning: **Fish and Otter Passage** through the water courses that run adjacent to the site and in particular on the Weston Mill stream (under the open span bridge); an enhancement of the biodiversity value of the **surface water swale** that runs at the back of the site (below Blackies Wood) before entering the proposed wildlife pond.; **Habitat creation** outside of the development boundary by the removal of the culverted unused track crossing the Barne Brake Creek to benefit wildlife movement within the watercourse in addition to allowing inter-tidal Biodiversity Action Plan (BAP) habitat to be re-created. The applicants were advised that more stringent lower limit critical load levels on **Air Quality** should be applied to the sites of ecological interest and there needed to be clarification of Predicted Environmental Concentration (PEC) to enable a better assessment of the potential air quality impact to Ernesettle County Wildlife Site (CWS).

These issues have been addressed leading to the EA's conclusion that the proposals are now considered acceptable subject to conditions and the planning obligation addressing the matters identified.

Natural England (NE)

Natural England expressed concern that although sufficient information had now been provided to allow a full assessment of this application and its potential environmental impacts and it accepted that the development had the potential to mitigate its impacts and provide a net gain in biodiversity; the detail on how these works would be secured was unclear from the applicant's proposed Section 106 Agreement Draft Heads of Terms dated September 2011. It pointed out that mechanisms for securing mitigation and enhancement works must be resolved prior to commencement. The issues that remained unresolved and required clarification were listed and it suggested that if the application was amended with additional information, Natural England should be re-consulted.

NE has subsequently indicated its support for the conclusion of the Local Planning authority's Habitats Regulations Assessment (see 8.4)

A copy of the applicants revised proposed Section 106 Heads of Terms (7th November 2011) were recently considered. The NE view is that, **on the understanding that the planning application is subject to appropriate clauses and conditions, confirmation is given that the applicant's suggested Section 106 Heads of Terms addresses NE's outstanding concerns.**

The NE concerns prior to this had been as follows:

1) In respect of the applicant's proposed Section 106 Agreement Draft Heads of Terms: (dated September 2011) : To secure a net gain in biodiversity in line with PPS 9 and Plymouth Core Strategy CS19 it was agreed with the developer that off site biodiversity enhancement works would be required and secured through a Section 106. The revised relevant ES sections (C9 & D7) do not seem to fully address our feedback. Specifically, the Section 106 will need to ensure that resources are secured to enable off-site works to be adequately funded. Currently the Section 106 states "*A budget of £10,000 per annum could be made available by MVV...*" (C.9.2 supporting statement – further information) – "could" should be replaced with will, timeframe specified, and details of who will be recipient of funds added. Further, the main impact on the ecology of the site is during construction in the first few years. It was discussed with MVV and included in our response that there would need to be some front loading of this funding during the first few years to ensure the enhancement works begin at the point in time when the greatest impacts occur. The remaining years funding could be used to maintain the improvements implemented.

Ecological Mitigation and Enhancement (URS Scott Wilson September 2011)

There is similar ambiguity as detailed above associated with wording in D.7.26 “Financial contributions could be made by MVV...” This aspect needs clarification.

Ecological Management Plan (URS Scott Wilson September 2011)

2) The ecological management plan has not been sufficiently changed and does not include our request for the mitigation measures to be timetabled against construction impacts. Prior to commencement of development a revised ecological management plan will need to be submitted and agreed which includes:

- Mitigation and enhancement works and the timescales for their completion detailed alongside development timescales (construction and operational) to ensure mitigation works are completed in advance of when impacts occur;
- Detailed management specifications (including maps of the areas showing the works to be undertaken) during construction and operational periods;
- Detail of the mechanism for enabling review of the ecological management plan.

NE accepted that some of this information was provided but it was spread over a number of documents. It suggested that, to provide clarity, existing information and the new requirements should be included within a complete ‘Ecological mitigation, enhancement and management plan’.

English Heritage (EH)

The ‘Mixing House’ is some 300m to the west of the site and English Heritage’s interest focused upon the setting of HMS Drake complex. It originally considered whether there might be a potential to impact on the setting of the group of listed buildings of HMS Drake (one grade II* structure and a number of grade II structures) but then accepted that there are some sizeable structures between HMS Drake and the site of the proposed facility. EH had also expressed the view that any pipe runs would require careful consideration, and if it is proposed that they run below ground there might be impacts on archaeological deposits in the area. EH sought confirmation of the precise relationship between HMS Drake and the proposed plant so that the impact could be fully assessed and suggested that this could be in the form of a photomontage showing key views looking towards HMS Drake with the site of the EfW CHP facility behind. A photomontage was prepared and EH had **no objections**.

However, because of the photomontage discrepancy described in section 5 above the photomontages relating to the relationship to HMS Drake were amended and re-submitted, and after further consideration by English Heritage no objections have been raised.

South West Water (SWW)

SWW confirm that foul drainage capacity and water supplies for domestic purposes are readily available. It pointed out that the applicants needed to discuss with them matters concerning the points of connection for the water required for the process element of the development and the applicants were advised.

Highways Agency (HA)

In June the HA issued a **Direction** that planning permission should not be issued for 6 months as additional information was required to enable it to fully assess the impact of the proposed development on the strategic road network.

The Agency's main concerns were the impact of the additional HGV movements through the Weston Mill junction of the A38 (T) on both the safe and efficient operation of the Strategic Road Network (SRN). Given there is a pattern of existing accidents in this location, the Agency was concerned that an intensification of HGV movements in this location could increase the severity or frequency of these incidents.

On the 24th November it advised that having considered the latest packages of measures, and drawing Ref: PA24B Revision B(NOTE: which shows minor and immaterial amendment compared to the drawing submitted with the application); it is content that the applicant has addressed those concerns.

*They state "Given the improvement scheme falls largely on Plymouth City Councils road network, we are happy to **direct relevant planning conditions** preventing commencement of the development until the implementation of this scheme, on the understanding that Plymouth City Council as local highway authority are satisfied with all elements of the scheme, including the requirements for any additional road safety and non motorised user audits.*

Our remaining concerns related to the impact of construction traffic on the Strategic Road Network, and we have requested additional information to clarify details on this. However, the Agency is now willing to direct relevant planning conditions which require the applicant to provide additional details within a Construction Workers Travel Plan, and Construction Management Plan. We understand the local highway authority requires a similar condition. Furthermore, our final condition relates to limiting the number of daily HGV movements on the SRN to the level assessed within the Transport Assessment".

(The Directions are included in the conditions as part of the recommendation in this report)

Network Rail

Network Rail initially pointed out that they were drafting the easement agreement for access under the viaduct and listed their requirements for the safe operation of the railway. It then pointed out that, although the applicants would need to discuss matters with Network Rail's Asset Protection Engineers

and enter into a Basic Asset Protection Agreement with them, they had **no objections** to the planning application.

Then, in October 2011, it wrote to the Local Planning Authority objecting to the planning application on the grounds of safety. The applicant's then undertook further analysis to supplement the safety analysis which was originally submitted. The Senior Asset Protection Engineer Network Rail advised in November that **the additional information provided is sufficient to remove his objection.**

Requirements are listed in respect of Drainage—preventing discharges onto NR land; Safety –demolitions should be carried out in accordance with an agreed method statement; Ground levels –any changes should involve consultation with NR; Site Layout—buildings not to be within 2m of boundary fence; Plant Scaffolding and cranes – not to over sail the railway and positioned not to fall on NR land in the event of failure. These requirements have been forwarded to the applicants together with the contact names.

Defence Infrastructure Organisation

It points out that the height of the development would necessitate that their aeronautical charts and mapping records would need to be amended and the applicants would have to provide some details to them about this.

(This could be an informative if planning permission was warranted). They therefore raise **no safeguarding objections.**

Health and Safety Executive (HSE)

The Office for Nuclear Regulation is an agency of HSE and initially pointed out that it had to consider if the proposed development could be satisfactorily incorporated into the Emergency Plan. Having done so it has **no comments** on nuclear safety grounds to make to this development. This decision is made without prejudice to the interests of other branches of the Health and Safety Executive. Although there has been correspondence with other branches relating to the planning application, no further formal comments have been received to date.

Devon and Somerset Fire and Rescue Service

The main road directly outside of the fire station at Camel's Head which runs from the parkway down past the fire station to the traffic lights and then into the dockyard does at predictable times get congested. However the congestion is tidal i.e. into the dockyard in the morning and out of the yard at the end of the day. This therefore leaves an uncongested lane that can be utilised to overcome any difficulties. The addition of the expected additional lorry traffic lorry will add to this but at this stage it **should not cause concern.**

Consideration has been given in the event of an incident inside the dockyard and whether the proposal will this affect the ability of the fire crews to enter the dockyard. Over the years the crews from all Plymouth Stations have attended what must be numerous incidents within the dockyard. We cannot recall any occasion when our ability has been impeded .The main congestion

is passing through the security gates (which is minimal) and not traffic related problems. It should also be borne in mind that in order to enter the dockyards access can be gained through more than one gate, Camels Head Gate, Granby Gate and Albert Gate. Over the years there have been occasions when one gate has been closed and access is routed through the other gates, even in these situations we are able to adjust and it does not affect our ability to attend an incident.

Devon and Cornwall Constabulary

The Devon and Cornwall Constabulary are **not opposed** to the granting of planning permission for this application.

NHS Plymouth Primary Care trust (PCT) and the Health Protection Agency (HPA).

The NHS Plymouth Teaching Primary Care Trust (PCT) response is made in full consultation and agreement with the Devon Health Protection Team of the Health Protection Agency (HPA).

The PCT points out that the **Health Protection Agencies (HPA)** 2009 review of the research examining the links between emissions from municipal waste incinerators and effects on health suggests that while it is *not possible to rule out adverse health effects* from modern, well regulated municipal waste incinerators with complete certainty, any potential damage to the health of those living close-by is likely to be very small, if detectable.

NHS Plymouth Primary Care trust (PCT) notes that the applicant's Health and Wellbeing Assessment (HWBA) is a desk-top review of 'six' key sources of literature and includes a brief discussion of the impact upon selected determinants of health.

The applicants HWBA recognise that the construction and operation of the EfW CHP facility is perceived to have the potential to impact on the social determinants of mental wellbeing. The applicants HWBA considers the '**direct** health impacts' arising from emissions to air, noise and traffic associated with the EfW plant. It draws upon internationally recognised standards for the measurement of air quality/emissions, noise and traffic and it concludes that the health issues arising from these direct impacts would be mitigated for in the overall MVV design proposal and would be well controlled by the plant design and its management.

However, the PCT lists 4 limitations of the HWBA Report.

1)The HWBA Report is limited to considerations of direct health impacts and does not consider the potential 'indirect impacts' arising from the EfW plant which could affect the local population either immediately, in the short term, or after a longer period of time.(The PCT believe that it is recognised practice that a prospective health impact assessment would normally include consideration of the direct effects on the health of the members of the population and more indirect effects through intermediate factors that influence the determinants of health of the population).

2) The HWBA Report does not explore the note of caution raised by the HPA Report

i.e. “like all scientific findings, it may be subject to revision if new data were to emerge”; given that modern EfW plants are relatively recent the research of associated health impacts over time is scant particularly with reference to indirect health impacts and the broader social determinants of health.

3) The HWBA report does not discuss whether there is the potential for distributive

health impacts within local population sub-groups nor does it take into account the possibility of higher exposure of socio-economically deprived groups.

4) The HWBA does not include reference to or discussion of expressed public concern or to public perception of health-risk associated with the EfW proposal.

The PCT states that it is not possible to be conclusive about whether new generation incinerators per se will not affect health. “For this reason **precautionary approaches** must be applied with rigorous pollutant data monitoring of the new EfW facility, contributions to scientific investigations (where appropriate) and application of policy guidance that promotes and protects health as it emerges. This particularly applies to those at most risk from exposure – operatives, those living or working close to the facility, the young and those with existing respiratory conditions”. The intention of the use of the term “**precautionary principle**” is not to suggest that there is not a robust and appropriate statutory process for assessing the proposal.

The NHS considers that the precautionary principle indicates that there should be an aim of minimising as far as is practicable the production of all emissions relating to air quality and noise from EfW facilities. It is stated that the World Health Organisation recommends adopting this approach as it believes that research to date does not provide conclusive evidence of the absence of health impacts and risk associated with modern EfW facilities

Local people suffer from multiple deprivations that may be exacerbated by the proposed development; cumulative impact will fall on some of the poorest and the most vulnerable people in the City. The literature review and letters of public concern highlight the need of addressing the public **perception** of risk of EfW plants; the requirement for ongoing meaningful public **engagement** for the proposal is also highlighted in order to ensure that the local community believe their concerns are being heard, being taken seriously and given due consideration

The PCT have therefore adopted a precautionary approach and conducted a **Rapid Prospective Health Impact Assessment** of the proposal and this is reflected in their recommendations and mitigating and enhancement suggestions.

The intention is to highlight the concerns of the PCT surrounding this proposal and to suggest ways of mitigating and controlling potential negative impacts, strengthening positive impacts and to put these to the Planning Authority and the applicant for consideration.

The NHS Plymouth has subsequently written to clarify its concerns and recommendations. These are considered in section 10.11 of this report together with their suggestion of a possible Section 106 clause described below.

NHS Plymouth has prioritised the need for easier access to primary medical services (GP practices) for the Barne Barton population. Currently there is no such facility and no PCT capital budget available to do this. However, the PCT has still undertaken to provide GP services in Barne Barton and a plan has been drawn up to use a third party developer to provide the facility that could be rented to a GP practice. They point out that under the Premises Directions; the PCT is required to reimburse the rent for the facilities for a minimum of 25 years. The Section 106 proposal was for assistance with the revenue expenditure on rent reimbursement. If such funding was available, the PCT would then be in a position to ensure contractually that service beyond the normal primary medical service of a GP practice would be provided, making the practice a health promoting practice that also provided a range of wellbeing and wellness services.

They state that their request for Section 106 contribution towards revenue expenditure was made because, at the time, this was the only definite spends identifiable against the provision of the facility and services. If this proposal for direct funding to the PCT is not considered appropriate, then the PCT would ask that a financial contribution for wellbeing was made and included in a Community Fund, that the PCT could then access and work with the local community, as indicated above, to commission appropriate wellbeing services out of, or in close liaison with, the primary medical service facility. The PCT would be very willing to sit on a Trust Board to ensure that such funding was allocated to appropriate evidence based interventions (Addressed in section 10.11).

Plymouth City Council Waste Collection and Disposal Services

Plymouth City Council's Director for Community Services with responsibility for waste collection and disposal services, having noted several letters of representation and articles in the local media questioning Plymouth's future recycling strategy in light of the above development proposal has made representations.

The Council, working with partners in Devon and Torbay as the South West Devon Waste Partnership, has produced and approved both Outline and Final Business Cases which clearly set out a strategy to achieve significant recycling improvements in the future. In Plymouth's case this shows recycling rates improving to over 44% by 2019/20 up from the 2010/11 target of 33% which was achieved. These commitments and modelling assumptions have been thoroughly scrutinised and accepted by DEFRA as part of the PFI

approval process and set out Plymouth's long-term waste strategy which includes an energy from waste plant at Devonport.

Therefore on behalf of Plymouth City Council, the Director confirms that the Council is committed to increasing recycling and the above development proposal will complement and not be at the detriment of this. Any suggestions to the contrary are incorrect with the long term recycling and residual treatment solution forming part of an integrated strategy.

Furthermore, the Director highlights that the security of the PFI grant from DEFRA is dependent on the Partnership and each of the partner Councils' including Plymouth delivering their wider recycling commitments as set out in the approved Final Business Case. The Council is committed to recycling and further initiatives to increase recycling in 2011/12 include an expansion of the kerbside garden waste collection scheme and a pilot kerbside glass collection scheme.

Ministry of Defence (MoD)

Royal Navy

The Naval Base Commander wrote in **support** of the application. The plant would produce a 20% annual financial saving in energy costs for the Naval Base. It would help to meet Government carbon reduction targets, would improve electrical power supply and would offer local educational opportunities and valuable work experience for students. He states:

"Naval Base and Babcock staffs have been working with MW to assist, where necessary, with the development of MVV's proposals. From this work, we assess that the anticipated benefits to the Ministry of Defence alone are wide ranging and include savings in both cost and carbon emissions through to local educational opportunities."

"The long term future of the Dockyard was confirmed in the Strategic Defence and Security Review, and has recently been further reinforced by the decision to build the Royal Marine Landing Craft Support and Training Facility at Devonport. Across the Ministry of Defence there remains, however, an ongoing requirement to drive down costs, so we are always looking for ways of further reducing the cost of running the Naval Base, thereby helping to sustain defence activities in Plymouth. To this end, I can confirm that agreements have been signed with MW that, over a period of 25 years, could provide around a 20% financial saving on the Naval Base and dockyard energy bill, which currently exceeds £12 million each year."

"The Government has recently published the new Greening Government Commitments that will replace the Sustainable Operations on the Government Estates (SOGES) targets. The Ministry of Defence has challenging Sustainable Development targets for carbon emission reduction and it is anticipated that the Energy from Waste plant will greatly assist the Naval Base in delivering reduced emissions associated with the use of electricity (from activities on the Naval Base)..I would like to assure you that the anticipated benefits provided by the proposed Energy from Waste plant do not in any way remove the long-term requirement, and our ongoing commitment, to driving down energy usage or increased re-cycling, for which we have also been set challenging targets."

"There are a range of additional benefits that the proposed facility will bring to the Naval Base."

Firstly, I can confirm that the North Yard and Fleet Accommodation boilers need not be operated when the Energy from Waste plant is running, thereby further reducing

emissions. This will be of significant additional benefit in supporting energy supply to the new build Naval Service Recovery Pathway Expansion Project.

Secondly, the electrical supply to ships and submarines, the Naval Base and the dockyard, is derived from several independent grid connections, supported by on-site standby diesel generators; the proposed Energy from Waste plant will therefore provide a significant additional supply to further reinforce electrical supply availability. Finally, the Ministry of Defence runs an Engineering Apprentice Development Scheme and the Energy from Waste plant will provide a valuable educational and work experience opportunity for students during the construction phase and subsequent operation of the plant."

" the Ministry of Defence strongly supports the Energy from Waste facility development given the anticipated resultant benefits."

South West Regional Design Panel of CABE (SWRDP)

The applicant together with their design team have made three presentation to the South West Regional Design Panel of CABE, these were done at the initial ideas stage, the development of options and when the chosen design solution had been fully developed.

The final submission to the Panel was made in August 2011 with Planning officers in attendance. The Panel stated that *"The scale of the plant and the wooded, valley-like nature of the site have led the Panel to see landscape as the starting point through our three reviews"* and made the following observations on the scheme that is now submitted as part of the Planning Application:

The Panel recognised the importance of this scheme for Plymouth, its controversial nature and the huge design challenge it posed on the site.

They were impressed by the way in which the waste heat was to be used to support the Dockyard in the form of a district heating system, and considered that the overall efficiency of the plant would be well above usual EfW values such that the scheme would be hugely carbon-saving.

They advised the applicants ; *"On location, we'd just say that the large structure required and the nature of the process do not make this location close to residential areas impossible and it is a plus to reuse disturbed land rather than a Greenfield site. We applaud the fact that the waste heat will be used to replace conventional gas and oil fired boilers for the Dockyard and will use the existing district heating system. We asked that you engage as constructively as possible with the ambitious plans that the Council has for CHP and we support your efforts for the adjacent residential areas also to gain heat from the plant. We also welcome the inclusion of photovoltaics, as we had suggested."*

The Panel felt that there was nothing alarming in the scale of the proposed building in this context and considered that the public and residents of this part of Plymouth should be used to seeing large structures in this locality. They supported the main premise that the scheme should express its function, and said *"the more the plant makes its function in converting everyone's residual waste into heat explicit the better."*

The Panel **supported the main design concept** of wrapping the building tightly into a series of boxes though considered that the measures used to enliven them over complicated the design and that a simpler solution could be taken, though they did say these concerns were not fundamental. They stated that *"We didn't find the nautical analogy convincing and we'd much prefer a*

robust and authentic architectural language. Efficiency is wanted in the architecture as well as the operations; anything not efficient is probably a visual detraction." The Panel considered too that the use of the graded tones was appropriate, but felt that an opportunity existed to bring an artist into the process to use colour more thoroughly and imaginatively.

They supported the general landscape design approach which provided a strong planting framework away from the site particularly along the avenue on the approach road and along Savage Road in Barne Barton to the north and the benefits the scheme included such as the opening up Blackies Wood for the public and its management, and the provision of public open space and its kickabout facility.

The Panel did feel that the design team had provided too much planting close to the building which in their view detracted from the sheer scale and grandeur of the building.

They advised the applicants: *"Don't play down the size of the structures; just be proud! Applying this principle, we'd encourage you to think of a hard public space at the arrival point. The entrance should not be obscured but should be both legible and humanising.....Visitors' access to and enjoyment of visiting the plant is important as you recognise and we back the idea of explaining the scheme's environmental advantages....On the roof terrace in particular you need to be sure how it will function as exhibition and event space...."*

Plymouth City Council Public Protection Service (PPS)

The Public Protection Service (PPS) is advising the Local Planning Authority (Local Planning Authority) that it will **not object** to this application. It is the opinion of the PPS that the application will have an adverse impact on amenity in the local area, however, the impact can be reduced to an acceptable level, by effective mitigation measures, as identified by the applicant, as long as the applicant's predictions are realised and assuming the conditions proposed by PPS are applied.

Background

Public Protection Service (PPS) are non statutory consultees to the Local Planning Authority, and provide technical advice on applications that may have environmental considerations or impacts relating to land contamination, air pollution and noise.

There are some industrial activities that, due to their potential release of pollutants to air, land and water, require an Environmental Permit to operate. Environmental Permits are issued by the local authority or the Environment Agency (EA), dependent on the type of process. Energy from Waste facilities is in the category of premises regulated by the EA, and requires a Permit to be issued prior to operation. The Permit is only issued if the EA are satisfied that protection is provided to both the environment and human health, and is subject to a separate application and consultation process outside of the planning framework. The Permit will apply to the operation of the facility, and does not include both the construction and commissioning phases of the development, which can take up to three years.

PPS have based their consideration and assessment of the operational phase on the assumption that the facility will gain a Permit and it has been assumed that all pollution control measures required as part of the Permit will work effectively using best available techniques.

In relation to an application such as this where a permit is required, there is some overlap between PPS and the EA in relation to environmental issues such as noise, odour, fumes, dust, litter, hours of operation and air quality. PPS's role is to advise the Local Planning Authority on the material impacts of these issues, in relation to amenity, and propose suitable mitigation to minimise the impact. We have a particular role in relation to the construction and commissioning phases, particularly as the Environmental Permit does not commence until waste is first burnt in the facility.

PPS has considered all of the information provided by the applicant including the Environmental Statement (ES), and has taken into account the comments received during the formal statutory consultation period, including the information submitted as part of the regulation 19 response. We have obtained independent advice from a noise consultant and have used this in our consideration. We have considered all this information in light of statutory guidance and relevant local policies.

PPS are aware that the Local Planning Authority has consulted Cornwall Council for their views and opinions about how this may affect their residents, and as such we have not considered in detail the environmental impacts outside the Local Planning Authority boundary, although we have discussed these with the applicant.

Environmental Protection Observations

PPS have considered whether the land is suitable for its intended use and have examined the potential impacts of the development on noise, nuisance and air quality in three main areas;

- enabling and during construction;
- commissioning and periods of start up, and;
- operation.

Enabling and During Construction

The construction phase of the development is stated to be **25 months**, and is split in to a number of distinct phases, covering the different parts of the construction process.

Land Contamination

Having reviewed the ES and accompanying reports for the above application, **we are satisfied based on the information provided that the site can be made suitable for its intended use, subject to appropriate remediation.** We consider that remediation is required, as set out in the Ground Gas Assessment dated 8th August 2011. As agreed with the applicant this remediation will be subject to independent verification from the Building Control Officer in addition to close supervision from Kier, as set out in recommended **condition**. The majority of the site will be covered with the building footprint or hard standing, thereby limiting the risk from direct contact with contaminated soil, however, some areas of landscaping are proposed. Although we are satisfied that the submitted reports provide an overall assessment of the ground conditions, the development phase involves earth movement to achieve development levels, therefore the current samples are not indicative of the ground conditions at final formation level. Further sampling will be required in landscaped areas in accordance with section 10.10.4 of the Environmental Statement, as set out in the recommended **condition**. This sampling must include, but is not limited to, an asbestos screen for loose fibres that would not be detected by visual examination. PPS would like to support the EA's recommendation in their consultation response dated the 7th October 2011 for a condition requiring the **reporting of unexpected contamination**, to protect human

health, the environment and controlled waters, as set out in the recommended **condition**. The risk assessment for the areas known as Blackies Wood assumes **occasional** use by visitors to the EfW plant. A risk assessment for regular use has not been carried out; therefore, we do not know whether or not more regular use could pose a risk to health. As such PPS recommend a condition restricting the use of this part of the site unless additional risk assessment is carried out, to ensure that unacceptable exposure to contamination is avoided, as proposed in **condition**.

Emissions, Dust and Odour

Section 13.9.1, of the ES states that there may be short-term episodes during construction where residential properties, particularly those within 100 metres of the main construction area, may be affected by dust. The main effect of dust emissions, if not mitigated, may be nuisance due to soiling of surfaces, particularly windows, cars and laundry.

PPS note that the surrounding land uses of the site are industrial to the South and residential to the North, East and West. Some of these residential properties, such as those at Talbot Gardens (North West) are within 44 metres of the site boundary and will be in close proximity to this construction site for up to three years. It is anticipated that the construction phase will last for 25 months and although short-term in comparison to the operational phase, nearby residents could potentially experience adverse impacts during this phase.

The ES concludes that as the construction period is a temporary, short to medium term issue with localised impact, dust emissions during the construction phase are deemed to be negligible, but it also provides mitigation measures to control and limit any negative impacts within Appendix 6.3 (Outline Construction Environmental Management Plan).

PPS consider that there is significant potential for dust emissions to result in nuisance and loss of amenity for adjacent properties during this long construction phase. Dust suppression will be required at all times to reduce offsite exposure to contamination and to minimise the likelihood of complaints of nuisance from nearby residents. The location of the site in close proximity to the river, where wind conditions can be particularly noticeable, will mean that, even with robust mitigation measures, there could be a likelihood of complaints occurring during the construction phase. To ensure that residents are not adversely affected during the construction phase we recommend a **condition** requiring the applicant to supply a comprehensive and **detailed Construction Environmental Management Plan (CEMP)**, detailing the arrangements for managing all environmental effects of the development during the construction period, prior to commencement of works.

In addition, PPS recommend that an **Amenity Complaints Procedure** for the handling of all nuisance complaints during the construction, commissioning and operational phases be agreed and adopted to ensure any complaints are documented, investigated and that actions taken are recorded and retained for inspection by the Local Planning Authority in accordance with a **condition**.

Construction Traffic Emissions

The ES concludes that the impacts from construction traffic are negligible as the flow of construction traffic is expected to be lower than operational traffic flows and therefore have a neutral effect. PPS note that any impact on the local air quality from vehicle exhaust emissions during this phase will be in the areas immediately adjacent to the site boundary, in Talbot Gardens, at Camels Head Junction and Weston Mill Drive. **PPS accept that construction traffic travelling to and from**

the site is unlikely to have any adverse material impact. Once within the construction site boundary, all traffic exhaust emissions will be suitably controlled by condition through the agreed CEMP, by appropriate management measures such as restricting on-site movements, limiting speed and by designating specific routes.

Construction Noise

Construction work is an inherently noisy activity and can be extremely disturbing to residents in the vicinity. The noise and vibration assessment contained within the ES follows a worst case scenario approach which allows a full assessment of the impact that the construction phase will have upon the amenity of the area.

The various receptors and the potential noise levels that these receptors could be subjected to have been assessed. The ES concludes that some construction activities will be noisy and that there will be some loss of amenity experienced by a number of residents, but the duration of the activities that may cause significant disturbance are expected to be short term.

The ES and the supplemental Acoustics Technical Note, dated the 28th of July 2011, state that the predicted levels are unmitigated worst case scenarios, and do not take account of any mitigation measures such as controlled working hours, noise barriers and use of quiet machinery. The CEMP must include details of measures which would control any adverse impacts of noise through the construction phase. A condition is recommended to set maximum permitted noise levels during construction.

After considering these documents, we agree that the noise emitted through the construction phase is relatively short term and can be suitably controlled by a condition requiring the applicants to adhere to the mitigation measure approved and agreed in a submitted CEMP. **(See Condition)**

Commissioning and Periods of Start up

The commissioning phase is a systematic process of ensuring that all processes and building systems perform according to the design, intent and operational needs. It is anticipated that the full **commissioning phase** will last for **approximately 8 months**, although PPS has learnt that at other plants this phase has taken longer. It is also noted that the facility will be **shut down for maintenance and repair at least twice a year, excluding unforeseen breakdowns.**

Experience gained from the commissioning phase of Langage Power Station has shown that this period can adversely affect surrounding residents. Further information was provided through the Regulation 19 request which confirms that all emissions during the hot and cold commissioning phase will be treated through the flue gas cleaning system. This is designed to handle the maximum pollutant concentrations based on the plant operating at maximum capacity, for 8760 hours per year. The applicant concluded that the flue gas cleaning system will adequately control the emissions, which will be at lower concentrations, during the commissioning phase.

Section D.13.37 of the Regulation 19 response, 'Further Information' states that there will be 'short periods' of time where boiler and ductwork which has been coated with preservative treatments will, when being brought up to temperature, release odours. **The release of such odour is an unavoidable by-product of the commissioning phase but suitable and robust measures must be put in place to ensure that these are minimised where possible.**

In addition to the Amenity Complaints Procedure for the handling of all nuisance complaints, a condition is recommended to require the applicant to submit and have written agreement for a **Commissioning Management Plan**. The plan will ensure that advance notification of commissioning events is made public and widely advertised to the local community and to the Local Planning Authority. This information should also be cascaded by letter, notice or other forms of media to all residents and ward members likely to be adversely affected during this period.

In relation to noise, the additional information provided within the formal regulation 19 request identified issues such as safety valve testing, the release from exhaust vents and the blowing out of steam pipes which are all inherently noisy events. The applicant has stated that the noise levels have been carefully engineered to ensure minimal impact to the surrounding residents. We require that these events are further mitigated, by appropriate scheduling within the least sensitive hours, and we recommend that a condition is applied to **control the timing of the start up process following shutdown**.

Operational Phase

The life of the operational phase of the plant is **expected to be 40 years**. Consideration has been given to future developments and other proposals that are contained within the LDF.

Stack and Traffic Emissions

All pollutants emitted from the stack will be strictly regulated by the EA permitting process that are responsible for setting emission limits, monitoring compliance and enforcement. Whilst the EA are responsible for the emissions from the stack, Plymouth City Council has a legal responsibility under the Environment Act 1995, to consider the impacts of emissions from permitted processes and traffic in the local area. We have considered the current air quality issues and referred to the air quality reports undertaken as part of the review and assessment exercise, which are published on the Plymouth City Council website. Plymouth City Council has two current **air quality management areas (AQMA's)** in Mutley Plain and Exeter Street and are intending to declare a further three AQMA's in the coming months in Royal Parade, Molesworth Road Stoke and Crownhill Rd/Tavistock Road junction. These sites are not in close proximity to the proposed development. These areas have been identified within the ES and **we are satisfied that these have been appropriately considered**.

The ES concludes that modelled emissions from the stack show a small increase in NO₂. It further clarifies that when these impacts are considered combined with traffic emissions, the model demonstrates that there will be a small increase overall to the levels of NO₂ in the area when the EfW is scheduled to be operational. When we considered the predicted levels, compared to the **National Air Quality Objective (NAQO)** of 40µg/m³, it is clear that this standard will not be exceeded. **We are satisfied that the application contains sufficient information and assessment to confirm there would not be a breach of the NAQO, as a result of HGV's deliveries**. We also consider that there is **unlikely to be any adverse material impact on the wider Plymouth trunk road network from the operational traffic associated with the plant**. We have considered the impact of queuing traffic on the new access road, and we are recommending a **condition** to switch off engines, to reduce both air quality and noise impacts.

Although the predicted increase in air pollution from the EfW facility, in terms of combined traffic and process emissions is accepted as small, PPS propose to

increase monitoring of any potential impacts on Plymouth's air quality, to validate the predictions. This will impose additional demands and costs and we will be seeking funds through the section 106 process to carry out site specific monitoring of these potential impacts, to ensure that the predictions are accurate.

After reviewing all the monitoring and modelling data we agree that all predicted levels are expected to be below the objectives.

Stack Height

The ES concludes that based on the air quality dispersion model, **the assessment considers that a stack height of 95 m is required to ensure adequate dispersion of pollutants.** As previously stated, the EA will regulate the atmospheric emissions from the plant and will be reviewing this in more detail with the submitted permit application. However, on examination of the submitted information, **PPS consider that an appropriate model has been used to make this assessment taking in to account the local topography and micro climate.**

Odour, Dust and Litter Control

(Fugitive Emissions) Any waste management site will have the potential to cause odours, litter and dust, unless effectively controlled. For this proposed facility, the main source of odour is expected to be the Tipping Hall, and other parts of the main building where raw waste is awaiting treatment. The ES states that all deliveries of waste to the site will be deposited inside the Tipping Hall, which is enclosed and designed to contain odours through a process of negative air pressure.

PPS acknowledge that waste imported to the site will be handled within the tipping hall and the potential for dust and litter around the site should be small. However, there still remains the potential for **fugitive emissions** of dust and odour to occur during the operation of the plant. It is suggested that a condition requiring that an **Odour, Litter and Dust Management Plan** be submitted which should include details of control of such issues from the site as set out in a condition. In addition, it is suggested that a condition be applied to prohibit odour and dust beyond the site boundary.

With regard to the control of the by-products of the combustion process such as bottom ash and APC residue, conditions are likely to be imposed by the EA within the Environmental Permit to control any emission of dust. PPS support such a condition for this site.

Noise

The ES acknowledges that there can be a number of adverse health effects caused or aggravated by noise, and the potential for sleep disturbance. It concludes that the processing of waste, combustion and power generation processes are largely enclosed within the main building and will therefore be well-attenuated. **The primary noise source from site operations is likely to be the air cooled condensers,** which would be situated at the eastern side of the building, away from the nearest residential properties at Talbot Gardens and Savage Road and between a railway embankment and residential properties in Hamoaze Avenue.

Other potential noise sources include the turbine hall, boiler room, and the operations within the waste tipping hall where lorries are unloading and a mechanical shovel would be operating. The chimney outlets, external HGV movements and noise breakout from the building, workshop or the waste tipping

hall, are all potential sources of noise. It is recommended that conditions be applied to minimise these impacts.

In discussions, the applicant has said that **baling** will only take place during periods of planned maintenance or breakdown. PPS have considered the noise information provided to them, and recommend a condition to control this activity.

It is the remit of the Local Planning Authority to protect the amenity of an area in relation to noise; however the day to day operation of the plant will be the responsibility of the EA via the Environmental Permit. The permit is a pre-requisite to operation and includes conditions to control noise. Therefore we have based our assessment and recommendations on the assumption that the EfW facility is operating within its permit conditions and have examined amenity issues relating to the operation of the plant. We have suggested an informative that the plant operates within its Environmental Permit, at all times.

The ES and supplementary information provides a variety of predictions for various receptors during the day and the night. **The predictions demonstrate that the normal operation of the plant will generate elevated noise levels in the surrounding vicinity up to 5dB, which will be noticeable to some residents.** The ES concludes that overall, whilst there is going to be an impact in relation to noise, the elevated noise levels have been minimised as far as practicable. **It is the view of PPS that this predicted rise is on the limit of acceptability, and PPS strongly believe that noise will have to be closely controlled during the life of the plant, with particular attention to detail in choice of materials in construction and maintenance of the plant.**

In discussion with the applicants' noise consultant, PPS have been advised that the noise from the operation of the plant has been modelled and will not adversely affect residents in Cornwall. However, they suggest that the Local Planning Authority may wish to satisfy itself that Cornwall Council has had the opportunity to consider the information provided, and to raise any concerns.

PPS have examined relevant guidance of BS4142 and BS7445, in relation to noise in a mixed use area. We have obtained independent advice from a noise consultant and have used this in our consideration of the application. They have expressed concern that normal operation of the plant during night time hours may cause some noise with a tonal element, however the applicants have said that this will not be the case. To ensure that adequate protection is provided to the residents, PPS have recommended a **condition to prohibit tonal noise**. In addition, PPS recommend a **condition to control noise emissions** from the plant.

PPS have looked at the operational noise associated with the deliveries once on site. Vehicles delivering waste to the site can potentially queue on the haul/access road prior to entering the tipping haul. The queuing of vehicles on this haul road has also been assessed in relation to noise impact. PPS recommend a **condition** requiring **appropriate acoustic fencing on the haul road to reduce the potential impacts from noise**.

PPS consider **noise** to be the most critical issue in relation to this application and it is our strong recommendation that without conditions being imposed in their entirety, PPS would be unable to support this application.

To monitor the compliance of the noise levels, PPS recommend a condition requiring the completion of a **noise verification exercise**, and details are suggested in a condition.

Delivery Hours

We have considered and assessed the applicants proposed hours of operation in relation to the reception of waste. Planning permission is being sought for the facility to receive waste and remove recovered materials within the following hours:

- Monday to Friday 08.00 – 19.00
- Saturday 08.00 – 18.00
- Sunday 08.00 – 16.00
- Bank Holidays (except Christmas Day and Boxing Day) 08.00 – 18.00
- Christmas Day Closed
- Boxing Day 08.00 – 16.00

PPS have taken into account the need for the EfW's combustion process to operate continuously for 24 hours per day, 7 days a week. PPS also understand the desire of the applicant to have planning consent for a wide range of operating hours as this provides for future changes to operational demand, for a plant that has a predicted life of 40 years. However, that operational desire has to be balanced with the need to protect residential amenity.

PPS have examined the information provided including Tables 14.7 through to 14.14 of the ES, which conclude that there is a lower background level between the weekend and the weekday, which would support the need to protect these quieter hours. We have also considered the proximity of residential properties on three sides of the proposed plant in Plymouth.

PPS consider that it is likely **that over the 40 year operational life of the plant**, the area in which the plant will operate, the transport arrangements and the nature of the waste may change and consequently, **operating hours now considered suitable may be considered inappropriate** in the future. Consequently, PPS recommend that the Local Planning Authority consider appropriate conditions to minimise any negative impacts on the amenity of the area, whilst accommodating changes in the area, improved technology, improved vehicle design and changes in waste types. In relation to **Sundays and Bank Holidays**, PPS is concerned about impact on residential properties on days when noise and general disturbance can be more noticeable than that associated with normal weekdays. PPS therefore recommends to the Local Planning Authority that **the proposed hours of operation on these days are reviewed with the applicant to ensure that an appropriate balance is achieved**.

PPS acknowledge that **exceptional circumstances** may arise, such as adverse weather or other unusual events, major events and emergencies etc, which **require a variation to these hours** and therefore supports a planning condition that allows for these, provided they are agreed in advance and in writing by the Local Planning Authority.

Consideration of Other Impacts

Pest and Vermin Control

The proposed facility is on an area of waste/scrubland bordered by woodland to the West, railway embankment to the North and a tidal creek to the East. These areas provide harbourage for vermin. Site clearance and works during the construction phase have the potential to give rise to unacceptable impacts from vermin and must be considered as part of the CEMP. During the operational phase the Environmental Permit will require good site management practices which we believe will adequately control vermin.

The advice from PPS on the conditions indicated above are reflected in the conditions recommended to Planning Committee.

Plymouth City Council Transport and Highways Service

TRAFFIC IMPACTS

Based upon existing weighbridge data and the operational capacity of the plant, the proposed facility would generate a daily total of 264 two-way HGV trips on the local highway network over an 11 hour period. These movements are made-up of the following:-

Municipal Solid Waste (MSW)

Of the 264 two-way HGV trips that the plant will generate on a day-to-day basis just over 60% of those relate to the movement of municipal solid waste. Approximately 50% of these movements are related to Plymouth City Council Rear Collection Vehicles (RCV's) delivering direct to the site rather than Chelson Meadow (as they currently do) and Hookloaders delivering from Plymouth City Council Civic Amenity sites.

Apart from a limited number of South Ham's RCV's collecting in areas close to the Plymouth boundary (Woolwell, Ivybridge, Lee Mill etc) the majority of the remaining MSW trips relate to 16.5m HGV bulkers delivering bulked-up waste from the various areas that make up the South West Devon Waste Partnership (West Devon, Teignbridge, Torbay and South Hams).

Unless directed otherwise, all bulkers will travel to North Yard via the A38 and A3064 (Weston Mill Drive) in order to avoid driving loaded wagons through built-up areas such as the City Centre etc. In respect of the Plymouth City Council RCV/Hookloader movements and some of the bulker movements, it should be noted that these are not new trips on the highway network but a re-distribution of existing trips (e.g. at present 24 bin lorries pass through the Ferndale Road/Carlton Terrace/Weston Mill Drive junction on a weekly basis).

Commercial and Industrial (C&I)

As the 'primary' customer of the EfW facility is MSW, preference will be given to MSW movements over those associated with the delivery of C&I waste. Consequently C&I waste will be encouraged to take place during the quieter periods of operation. **Financial incentives will be offered by MVV to encourage this to take place. This will be secured as an obligation within the S.106 Agreement.**

Based on the amount of C&I waste the facility has the capacity to process (96,571 tonnes), the plant is expected to generate 74 two-way HGV movements on a daily basis. This is based upon assumptions made relating to the 'average' loads of bulkers (22.5 tonnes) and RCV's (8 tonnes) along with an assumption on the proportional split between the amount of waste arriving by bulker (40%) and that by RCV (60%). The distribution of C&I movements is

based upon the same principles as those established for the MSW movements i.e. all bulker movements would arrive via the A38.

There is a concern that if the EfW plant were to accept C&I waste in amounts smaller than those mentioned above then the number of movements associated with the delivery of C&I waste could be much higher than those currently forecast. MVV have now confirmed that the 8 tonne weight assumption for RCV's was based on an average which included some RCV's delivering smaller amounts of waste (4 tonnes). It has also now been confirmed that no waste tonnages of less than 4 tonnes will be accepted at the gatehouse (thereby avoiding smaller amounts of waste being delivered which would encourage increased traffic movements). The applicant has confirmed that financial penalties (10% increase in gate fees) will be applied to waste amounts of 6 tonnes or less which will be a major disincentive to C&I operators. It is considered that these measures will ensure that the assumptions made in the TA relating to the delivery of C&I waste are robust and it is recommended that these measures be included as a clause contained within the Section 106 Agreement.

It is also recommended that a further condition be attached restricting the number of HGV movements being made to and from the plant to that number specified in the TA (264 two-way trips) with an additional allowance of +/- 10% to address the fact that C&I movements have been calculated on averages. It is noted that there may be times when this overall figure of 264 will be exceeded (during periods of inclement weather etc) which is accepted by the Highway Authority.

The applicant has also confirmed that the plant will process some C&I waste arising from the Dockyard which will result in a reduction in the number of C&I waste movements identified in the TA. In order to avoid such vehicles having to use the public highway once they have delivered waste to the plant, it is proposed to erect a gate into the MOD car park from the new EfW plant access road. This will then allow MOD vehicles to drive through the MOD car park and back to the roundabout at the end of Dockyard Access Road North. **Details will be required relating to how such an arrangement will be managed in order to avoid use by general waste vehicles delivering to the plant.**

IBA/APCR

Apart from waste arisings, the EfW plant also generates out-going trips in the form of Incinerator Bottom Ash (IBA) and Air Pollution Control Residues (APCR). Both of these by-products of the incineration process will be transported away from the site in HGV's that have a capacity of 20 tonnes. It is anticipated that these movements will total around 30 two-way trips (15 arrivals and 15 departures) per day. At present the applicant is seeking permission to process bottom ash at a separate site at Buckfastleigh. The APCR will be processed at a specialist contaminated waste facility located in the north of the UK.

In addition to the above there are also HGV trips associated with the delivery of materials required for the treatment of flue gases (Urea, Bicarbonate etc). However the sum of these trips totals less than 1 HGV movement per day and consequently **the inclusion of these trips would have no bearing upon the results of the traffic modelling work undertaken.**

Staff Movements

The EfW facility will generate car trips associated with staff working at the plant. As there are only 35 full-time staff employed at the site (which operates on a 24 hour shift-working basis) and there will only be 20 staff on-site during 'office hours', the number of traffic movements generated by staff movements is not considerable (just 11 arrivals between 8.00 and 9.00am and 9 departures between 4.00 and 5.00pm). At present no adjustment has been made to these figures taking into account modal shift as part of the implementation of a site-wide Travel Plan. Therefore **the actual number of staff trips is likely to be lower than the number currently forecast.**

Junction Modelling

Traffic modelling work has been undertaken in order to determine the impact of the traffic movements being made to and from the plant upon the operation of 3 existing signal-controlled junctions, those being Wolseley Road/Weston Mill Drive, Saltash Road/Wolseley Road and Weston Mill Drive/Carlton Terrace/Ferndale Road.

Due to the time that it takes to complete the first collection rounds (bin collection rounds in Plymouth start at 6.30am), the morning peak hour in terms of arrivals at the EfW plant is between 10.00 and 11.00am with 34 two-way trips (which equates to 1 HGV arriving every 3.5 minutes). This is well outside the traditional am peak hours on the local highway network which extends from 7.00 until 9.00am (due to most shifts within the Dockyard starting at 7.30am) and in terms of an arrival profile is consistent with other EfW plants visited in the UK (Nottingham, Sheffield, Coventry etc).

The busiest hour in terms of HGV movements in the pm occurs between 2.00 and 3.00pm as refuse crews complete their second round of the day which is often much shorter (51 two-way trips of which 46 are HGV related). As per the situation in the morning, the afternoon peak is well outside the traditional pm peak hour on the highway network (4.00-5.00pm).

As the proposed EfW plant does not generate a substantial number of movements in either the am (29 two-way trips) or pm (25 two-way trips) peak traffic hours, the results of the traffic modelling undertaken reveal that the development has little impact upon the operation of the junctions that have been technically assessed.

The most critical of the 3 junctions modelled is the Weston Mill Drive/Carlton Terrace/Ferndale Drive junction which is shown to be operating over capacity in the opening assessment year of 2014. However it should be noted that this

junction is currently operating close to capacity in any case and is over capacity in 2014 with the inclusion of background growth but with no development traffic (Do Minimum). It is likely that this junction would have to be replaced in any case were a new District Centre to be provided on land to the north of the existing fire station at

Weston Mill. **The applicant has therefore agreed to contribute towards the costs associated with the upgrading of this junction at some point in the future. This will be secured as a financial contribution included within the S.106 Agreement. (see appendix 1, schedule 2)**

The assessment of the operation of the 2 remaining junctions (Wolseley Road/Weston Mill Drive and Saltash Road/Wolseley Road) indicates that the EfW traffic will not lead to any operational issues at either of these junctions, with both shown to be operating within their available capacities with the inclusion of the development traffic. With regard to the Wolseley Road/Weston Mill Drive junction, this will be physically linked to the new signalised right turn junction being provided on the Dockyard Access Road North which serves the EfW plant.

Sensitivity Test

Whilst the junction modelling work has been undertaken on the basis of the average number of HGV movements that are expected at the facility on a daily basis, at the request of the Highway Authority the applicant has also undertaken a sensitivity test. This test considered the impact of the development traffic upon the operation of the same junctions as those mentioned above but applying the worst hour of the worst day from each of the partnership areas over a 3 month period. Applying these figures the number of movements occurring between 10 and 11.00am increased from 34 two-way trips to 62 whilst in the pm peak period (2.00-3.00pm for plant operations) the number of movements increased to 72 from 46 (two-way HGV movements only). The results of the modelling revealed that the junctions of Wolseley Road with Saltash Road and Wolseley Road with Weston Mill Drive still operate within their theoretical capacities taking into account these extra movements. As expected there is a further deterioration (albeit slight) in the operation of the Weston Mill Drive/Carlton Terrace/ Ferndale Road junction. However it should be noted that it would be extremely unlikely that this number of movements would ever be realised.

WASTE DELIVERY BY ALTERNATIVE MODES

As the RN Dockyard provides access to a wide range of berthing facilities and has its' own dedicated rail network (which links to the strategic rail network), the applicant has considered the possibility of transporting waste and bottom ash to and from the facility by modes of transport other than road, those being Water and Rail.

Rail

Apart from efficient movement and reliable transit times, one of the main advantages of the movement of waste by rail is that it allows large quantities of waste to be moved at one time. However it may take several days to accrue enough waste to then transport by rail which would therefore necessitate waste being stored for several days at a dedicated waste storage facility.

Another major disadvantage of the use of rail is that there would be an over-reliance on rail freight operator's timetables with pre-defined time slots. This rigid operational framework would be an issue for an operation that requires flexibility due to external factors outside of the applicant's control (adverse weather conditions resulting in no bin collections being made etc).

Water

In a similar way to rail, transporting waste by water would allow large volumes of waste to be moved in one go but as above this raises issues with regard to the interim storage of waste. The use of shipping for any movement (be it waste or goods) often necessitates long lead-in times and shipping movements are very-much affected by weather conditions.

In summary, **the movement of waste by alternative modes provides little flexibility when compared to transporting waste by road.** Flexibility is essential in being able to react to various conditions such as severe winter weather. Furthermore providing the necessary infrastructure to allow waste to be moved by rail or water is very costly when directly compared to the costs associated with road. Finally the use of rail and water would involve an element of 'double handling' as waste would have to be transported (by road) to port/rail stations from existing various waste transfer stations within the SWDWP area. For these reasons and those mentioned, **the movement of waste by rail or water would not be as effective in terms of time and cost when compared to road.**

There is an exception in respect of the above-mentioned statement in respect of the movement of Bottom Ash as this material is generated in smaller amounts and has the ability to be stored for longer periods of time. **It is therefore recommended that the movement of Bottom Ash by either water or rail be considered by the applicant.**

WASTE MILES TRAVELLED ASSESSMENT

A Waste Miles Travelled Assessment has been undertaken comparing North Yard to other potential sites for an EfW plant which includes New England Quarry (NEQ), Ernesettle and Coypool. The results of the analysis reveals that **the site which generates the least number of waste miles travelled is Coypool**, with the results for both Ernesettle and North Yard being very similar.

In addition, the applicant has also undertaken a review of the waste miles associated with the removal of IBA and APCR. Whilst the results of the assessment suggests **that New England Quarry** generates the least number of miles travelled, it is not currently known whether or not there is a commitment to recycling IBA for use as a secondary aggregate at NEQ (which there is in respect of the North Yard proposals). Clearly were IBA generated by the NEQ site to be exported elsewhere for processing to allow for use as a secondary aggregate then this would generate additional mileage.

ACCESS AND LAYOUT

The primary means of access to the site for waste movements arising from outside the Plymouth area is from the A38 via Weston Mill Drive. It has been confirmed by the applicant that this route will be used by all of the 16.5m bulked-up vehicles delivering to the plant unless conditions on the highway network dictate otherwise (accident on the A38 etc).

With regard to Plymouth RCV's, the route that they use to access the site would depend on the bin round they were undertaking for that day. On the basis of data provided on current collection rounds, it has been forecast that approximately 40% of these vehicles would still arrive via the A38/A3064.

In order to provide access into the site, **a new junction is proposed** on the private section of the road which currently serves the Dockyard entrance at Camels Head (this highway being known as North Access Road). A dedicated signalised right turn lane will be provided for waste vehicles turning into a new site access road that is being created around the edge of an existing car park that serves the Naval Base. It is proposed to physically link the operation of this new junction which serves the EfW plant to the existing traffic signals at the Wolseley Road/Weston Mill Drive junction to ensure efficient operation of both junctions and avoid unnecessary delays to traffic exiting the dockyard (the signals will be phased so that when HGV's are given a green light to turn right into the access road this would not coincide with a green light at the Wolseley Road/Weston Mill Drive junction for vehicles exiting North Access Road).

In addition to the traffic modelling work referred to above, the applicant has also undertaken **a further LINSIG assessment of the operation of this new junction. The results of that assessment indicate no capacity issues at this junction.**

It is noted that during the phase of works associated with the construction of the right turn lane that construction traffic could utilise the existing roundabout at the end of North Access Road so that they enter the site on a 'left-in, left-out' basis.

Creating a right turn lane into the site will result in a realignment of the kerblines on North Access Road in addition to some minor changes to the central islands on the western side of the Wolseley Road/Weston Mill Drive junction. These amendments will create the opportunity to provide some much needed unsignalised pedestrian facilities across this arm of the junction which will benefit both staff and visitors walking to the EfW plant in addition to pedestrians walking along the southern side of Wolseley Road. **It is**

recommended that these improvements be secured and delivered through a Section 278 Agreement.

The creation of the new access road will lead to the loss of around 150 existing spaces that serve the Dockyard. However the MOD have confirmed that this loss of spaces will not give rise to any operational issues at the Dockyard due to the implementation of a site-wide Travel Plan which seeks to encourage the use of more sustainable modes of travel as an alternative to the private car.

In addition to changes on the southern side of the Dockyard North Access Road, the creation of the new access onto this road will reduce the size of the existing coach drop-off bay situated on the northern side of North Access Road. However these alterations have the agreement of the MOD and the revised lay-by area provided will still provides enough space to accommodate a coach (18m in length across the back of the lay-by).

A new combined footway/cycleway is proposed along the southern side of the new access road from it's' junction with the Dockyard North Access Road up to the entrance into the new facility. The creation of an extra section of footway/cycleway on the eastern side of the new junction ensures that a continuous route is provided through to the plant building from the Wolseley Road/Weston Mill Drive junction.

The Tipping Hall within the building provides 5 bays in total, with a traffic light system directing drivers to the most appropriate bay depending on the type of vehicle (RCV, Hookloader, Bulker etc). Under the contractual arrangements that the applicant has with the SWDWP, the 'turnaround' times for RCV's (difference in time between vehicles being weighed-in and weighed out) is 15 minutes. It is acknowledged that the turn-around time for bulkers and hook loaders can be up to 25 minutes although the majority of HGV's accessing the site will be RCV's (just 3 bulkers in the busiest hour of 2-3pm).

On the basis of the above this allows each bay within the tipping hall to be used by RCV's 4 times within a one hour period and **therefore there is enough tipping capacity to cater for the number of RCV's expected during the busiest hour (20 in total).** However in order to undertake a robust assessment in respect of the noise and air quality assessments, the applicant has considered a 'worst case' of 5 HGV's queuing on the site access road which could occur as a result of a bulker unloading (restricting access to adjoining bays) or several RCV's all arriving at the same time.

Whilst it is unlikely to be required on a regular basis, the upper section of the site access road has been widened in order to provide an additional 165m of stacking capacity which could accommodate up to 16 RCV's (assuming a 10m length) or 10 bulkers. This would then ensure that **vehicles waiting to be unloaded** (a situation which may occur if all vehicles were to arrive at once) **would not stack-back and affect the operation of the Dockyard North Access Road.**

The applicant has confirmed that beyond a certain distance back from the weighbridge (that distance to be agreed by the Local Planning Authority) vehicles that are waiting to be unloaded will be required to switch-off their engines. Such operational measures should be included within a **Plant Operation Method Statement** which shall be submitted to and approved in writing prior to the commencement of the use of the facility.

NOISE AND AIR QUALITY

New Road Surfacing with Improved Traffic Noise Reduction Properties.

Traffic generated by the EfW plant will result in an increase in traffic noise levels exhibited from the surrounding road network. Existing traffic volumes using Weston Mill Drive, Wolseley Road and the Camels Head junction itself already result in high traffic noise levels being exhibited affecting the quality of life of adjacent residents. Weston Mill Drive, between Camels Head and the Carlton Terrace/Ferndale Road junctions was also identified as a First Priority Location by DEFRA through its strategic noise mapping process.

The additional traffic generated by the EfW development will contribute to an increased level of noise from road traffic in the area although it is recognised that this increase is minimal.

It is therefore recommended that a **contribution** from the applicant is sought towards providing new road **resurfacing** with improved traffic noise reduction properties on Weston Mill Drive and including the Camels Head junction.

An estimate to undertake these works puts the cost at £136,000. **It is recommended that the applicant contributes half this amount, £68,000,** towards the works required in recognition of the impact that the development traffic will have. The timing of these works is to be managed by the local Highway Authority and as such the applicant's contribution should not be time-limited.

However, some sections of these roads have been identified as in disrepair and in need of maintenance within the next 2 years, and so it should be expected that the works related to providing surfacing with improved noise reduction properties will be undertaken **within 5 years of the EfW plant becoming operational**. The provision of new surfacing with improved traffic noise reduction properties will both improve the nearest resident's quality of life and provide a wider, community environmental benefit.

Air Quality

The City Council's Transport Department works closely with the Public Protection Service on transport-related air quality issues in the city. The comments below have been produced by the Transport Department as the Local Highway Authority and should be read as supplementary to the comments on air quality received from the Public Protection Service.

DEFRA have technical guidance (Local Air Quality Management Technical Guidance

LAQM.TG(09) for the assessment of air quality for roads and junctions in relation to different scenarios including roads and junctions with high traffic volumes, **roads with a high volume of HGV's**, and roads with significantly changed traffic flows.

In relation to the traffic generated by the proposed EfW development in addition to existing and future predicted traffic volumes using the adjacent highway network, none of the criteria specified by the DEFRA technical guidance for detailed assessment is met.

Although the EfW development will result in increased HGV traffic volumes using the surrounding road network, this will still be a minority share of the total traffic using the junction and the major roads in the area. This is due to HGV traffic that currently uses the road system being at a low existing level. However the applicant has agreed to provide an additional sum of money (**up to £5,000**) for Noise and Air Quality improvements which would be of benefit to Weston Mill Community Primary School.

A38/WESTON MILL JUNCTION

The impact of the development-generated trips upon the operation of the A38 Weston Mill Junction has been assessed and considered by the Highways Agency. Whilst no over-riding concerns have been expressed by the Highways Agency in respect of capacity at the junction, a number of accidents have been recorded at the junction over a 5 year period with most incidents being shunt-type accidents which have occurred on the westbound off-slip. There is a shared concern from both the Highways Agency and Local Highway Authority that the increased use of the slip roads by HGV's accessing the EfW plant could result in the severity of the accidents increasing (slight incidents becoming serious and serious accidents becoming fatalities). The applicant has therefore agreed to carry out improvements at the junction (primarily on the westbound off-slip) to try and improve the safety of the junction. These works involve a slight narrowing of the slip road through the use of white lining along with the provision of anti-skid surfacing along the length of the off-slip. It is recommended that **these works be secured through a Section 106 Obligation and delivered through a Section 278 Agreement.**

CAR PARKING

The applicant is proposing to provide a total of 51 car parking spaces on the site in order to serve the EfW plant once it becomes operational, with 42 of these spaces allocated for staff and visitors (the other spaces being a combination of disabled or short-term spaces located at The Gatehouse).

Whilst there will be a total of 35 staff working at the plant, a shift-working pattern results in there being approximately 20 staff on-site during normal office hours (this being the busiest period of the day in terms of staff

numbers). It can therefore be seen that **the level of car parking proposed more than meets the operational needs of the facility.**

Cycle Parking: - A total of 10 secure and covered cycle parking spaces are proposed to serve the plant which is considered to be adequate. Although the Highway Authority would have preferred to have seen these spaces situated within the building itself, the applicants have confirmed that this would not be possible. Therefore it is recommended that 10 cycle lockers be provided in a suitable secure location within the site. It is suggested that this be covered by way of condition.

TRAVEL PLAN – OPERATIONAL AND CONSTRUCTION

Due to the scale of the works phase associated with the construction of the EfW plant, it has been necessary to consider the implementation of a Construction Workers Travel Plan (CWTP) in addition to the Travel Plan (TP) that will come into operation upon commencement of the use of the facility.

Travel Plan (TP)

The applicant has submitted details of a **Framework Travel Plan** that will be implemented once the plant becomes operational. Considering the limited number of staff working at the plant (just 35 in total), **the impacts associated with a modal shift away from the use of the private car to sustainable modes of transport** (walking, cycling, public transport etc) **would not be significant.** However the applicant has sought to include measures that help encourage the use of sustainable modes of transport for journeys being made to and from the facility by staff and visitors.

It has been agreed with the applicant that **a sum of £14,000** will be deposited in a dedicated TP account which can be used by the TP co-ordinator to fund measures/initiatives that help deliver the modal shift targets included in the TP. This could include the provision of a free bus pass for all staff working on-site during normal office hours (it is accepted that the bus passes would not be of benefit to those workers on early or late shifts), promotional events or marketing. The TP account would be subject to a 6-monthly audit by Plymouth City Council in order to ensure that the funding is being used for measures which support the delivery of the TP.

Construction Workers Travel Plan (CWTP)

The impact of the construction phase of the works has the potential to be considerable, with a build programme of almost 3 years and an average of 160 construction workers on-site during that period (the maximum number being 309 on-site during October 2013).

The applicant is proposing to provide 50 car parking spaces on-site during the construction phase which shall be allocated for use by supervisory and commissioning staff. Considering that many of these staff will be lodging locally and have the ability to car share or be collected by the proposed

shuttle bus service (see below), it is recommended that this number be reduced from 50 to 35.

In order to meet the parking demands for the remaining construction staff, a further car parking area which has capacity for 280 vehicles is being provided at the Goschen Yard with a dedicated shuttle bus service linking the two sites. The creation of this park and ride site at the Goschen Yard gives some cause for concern as it still encourages those staff that live outside the Keyham area to drive the majority of the way to the site, with the last 1.5km by minibus.

Such an arrangement could not be considered as being particularly sustainable.

In order to reduce the need for construction staff to use their own vehicles in order to access Goschen Yard, **it is recommended that the proposed shuttle bus service be extended to include a wider area of the City** (not just the Goschen Yard or the guesthouses/B&B's that will be used by supervisory staff). The precise routing of such a service can't be determined until details have been provided indicating where the construction workers live but as a minimum it is recommended that the service runs as far as Whitleigh to the north and the City Centre area to the east. This would certainly be of benefit to potential construction workers living in less affluent areas of the City where levels of car ownership are low (Devonport, Honicknowle, Whitleigh etc).

In addition to the staff mini-bus service (the details of which will need to be submitted to and approved in writing by both the Highways Agency and Local Planning Authority and delivered as part of a S.106 Obligation), further measures are proposed within the CWTP which seeks to encourage construction staff to use sustainable modes of transport. This includes establishing **a car-sharing database** and providing facilities for those wishing to cycle to the site (**cycle lockers and showers**). The CWTP also highlights that there will be a restriction in place preventing construction staff from parking within 1.5km of the site. This will be monitored/enforced through the **swipe card access system** that will be in operation. As per the operational TP, the applicant has agreed to deposit the sum of **£20,000** in a dedicated CWTP account that will be set-up by MVV. The CWTP co-ordinator will have access to these funds for measures/initiatives that help deliver the aims and objectives of the CWTP. It is recommended that this be included as a S.106 Obligation.

Construction Traffic Management Plan (CTMP)

The building of the EfW will necessitate the delivery of some particularly **large items of plant**. In order to reduce impacts upon both the Local and Strategic Road Networks, **it is suggested that where feasible, such plant is delivered by sea rather than road**. This requirement should be included within a Construction Traffic Management Plan (this document would be in addition to the normal Code of Practice document). The CTMP (which should be secured by way of a condition) shall include specific details relating to the number and size of vehicles accessing the site during the construction phase of the works, routes for construction traffic, delivery timings etc.

Conclusion

To conclude, whilst there are **no 'in principle' objections** to this proposal from a highway viewpoint, but the Unit would wish to secure Section 106 Obligations (see section 10.4) along with planning conditions mentioned (these are reflected in the recommended conditions).

7.2. Responses from Neighbouring and nearby authorities

Cornwall Council

The Council recognises and welcomes the contribution that the proposal would make towards managing waste further up the 'waste hierarchy' and reducing the need for landfill. In particular, the Council welcomes the consequential reduction in disposal of municipal waste from Plymouth to the Lean Quarry Landfill Site if Planning Permission is granted. Although Cornwall Council **does not wish to object** to the proposal we would like to make the following comments: -

Landscape Comments

The visual impact analysis is comprehensive in terms of the range of viewpoints that have been selected. With the potential impact that a proposal such as this could have, it is considered essential to make the analysis as clear as possible for all. We acknowledge that Cornwall Council's landscape officer has been in discussion and we welcome the additional information received and mitigation planting that has been proposed as part of the discussions.

There is a photomontage provided for Cornwall from Cove Jetty. This is the nearest location from Cornwall at a distance of approximately 1.5 km. The building is by its nature large and will be noticeably visible from this location and we welcome the additional mitigation planting proposed. However, it is considered that further consideration could have been given to whether the building could fit within its proposed setting better by profiling of the roof lines. It is considered that a more irregular roof line might reduce the block like appearance that the proposed building would have.

Social/Community Impacts

The section of the Environmental Impact Assessment for social/community impacts does not seem to be as comprehensive as anticipated for a scheme of this nature, scale and location, particularly given its proximity to residential areas. A Health Impact Assessment for example does not appear to be provided which looks at effects on well being of the surrounding community e.g. potential increased stress and anxiety, supported by details of known existing lifestyle patterns and empirical evidence. The scoping opinion by the Primary Care Commissioning Team (Plymouth City Council) requested this in their scoping opinion. While there is a chapter on this it seems to draw upon the findings of other chapters and not a specific assessment.

Transport

Cornwall Council's Strategic Transportation Planning Team has confirmed that they do not have any comments regarding the proposal.

Waste Needs

A table has been provided within the supporting statement (Table 7.1 (paragraph 7.1.3). This provides figures for both Municipal Solid Waste (MSW) and Commercial & Industrial Waste (C&I) produced from both Cornwall and Devon. This data for this has been checked against Cornwall's data and appears to be comparable.

It is envisaged that a proportion of the Commercial and Industrial (C&I) processed at the proposed facility would come from Cornwall due to its proximity to the proposed facility. We would be grateful if the applicant could give a broad indication of what percentage of C&I waste is anticipated to come from Cornwall.

Other comments

Comments from neighbouring parish/town councils in Cornwall; divisional ward members and members of the public have been received and these are appended to this letter (Appendix 1). Comments include concerns regarding the proximity of residential dwellings and the local school and concern regarding the potential impact of toxins particularly in the event of human error. We trust that these concerns will be given due consideration.

Devon County Council

The Waste Planning Authority confirms that the proposal is in conformity with its objectives and **does not object**. The Waste Disposal Authority supports the proposals.

Torbay Council

Support the application. Landfill sites are reaching capacity, will reduce greenhouse gas emissions from waste sites, PFI grant funding from DEFRA will not be available again if application fails, right location for a Combined Heat and Power scheme.

7.3 Representations

In their September 2011 submission, in response to the requests for further information the applicants' provided information by way of a 'map' correlating the points in the Regulation 19 request for further information and the location of the pages/sections where the corresponding information could be found in the submitted text.

A petition with 5,314 signatures was received on 10th October 2011 by the Chair of Planning Committee. It was organised by the group 'Incineration Is Wrong'. It states:

'We, the undersigned, respectfully petition Plymouth City Council for the withdrawal of proposals for any incinerator facility and/or Energy from Waste plant at the North Yard of Devonport Dockyard. We believe the incinerator will produce additional pollution for the residents across this densely populated

area of West Plymouth, will intensify the noise and road safety risk from an additional 100 lorries a day at Weston Mill, and significantly impact upon the health and economic well being of the local population. We further require a full public enquiry in advance of any decision to establish such a plant within the Moor View constituency.'

It should be noted that effecting the withdrawal of the planning application is beyond the legal powers of the Local Planning Authority, and the Council has no power to hold a statutory public inquiry. Unless "called in" by the Secretary of State the applications falls to be determined by the Planning Committee.

A total of 616 representations were received in respect of this particular planning application from 444 individuals. The notification process was divided into four phases of public notices. The requested response deadlines were left open beyond the period suggested in statutory guidance but for the purposes of statistical analysis they are divided into time periods as follows. In the first phase, which ran from 31st May until 13th September 2011, 419 representations were received. The second phase, following a request for additional information by the local planning authority under Regulation 19 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999, ran from 14th September 2011 to 13th November, when 98 representations were received. A third phase after the receipt of further information following a Planning Committee site visit to view the site from off-site vantage points ran from 14th November 2011 to 6th December 2011, 99 representations were received. A fourth phase inviting comments on the applicant's suggested draft Section 106 Heads of Terms, should the application be approved, ran from 21st November 2011 to the same 6th December 2011 date.

Most people raised more than one issue in their letters of representation and the analysis below is arranged by reference to the frequency with which several general topics were raised. Charts setting out the numbers of comments received for each topic and a map plotting the location of Plymouth correspondents are shown in Appendix 2. Details of the addresses of people who commented on topics are set out in Appendix 2

The comments made by organisations and Members of Parliament are listed separately below.

Issues raised in emails/ letters of representation from individuals by topic.

1. Residential proximity: 321 correspondents. Those writing in about this subject were concerned that the plant would be located too close to the nearby densely populated residential areas of Barne Barton and Weston Mill. Respondents also felt that there would be a detrimental impact on the wider city area down-wind of the plant. It was also pointed out that the area already has a concentration of other anti-social uses such as sewage treatment plant, recycling centre, and redundant nuclear submarines.

2. Health impact: 304 correspondents. Correspondents were worried about the long term impact on public health and the lack of systems to monitor this in the future. The Barne Barton/Weston Mill area also suffers from significant

health inequalities in comparison to the rest of the city. Concern was also expressed about the impact on people with pre-existing respiratory illness.

3. Traffic increase: 301 correspondents. Concerns were expressed about the increase in commercial traffic that would be travelling to and from the plant and the impact this would have on local residents. It was felt that this additional traffic would result in an increase in congestion, vehicle noise, and pollution from vehicle emissions, and traffic accidents. In the event of an accident on the A38 Parkway heavy goods vehicle would be diverted on to local roads. The road leading to the plant is close to bungalows for elderly people and a primary school.

4. Pollution risks generally: 262 correspondents. Concerns were raised about the impact of burning products such as plastics and the resulting production of possible dangerous nano-particles and toxins that might not be filtered out by the plant's chimney. This impact could be exacerbated by the topography of the Tamar valley and the climatic effect whereby mist can linger over the river for some time. There were also concerns about contamination entering the food chain and water courses. The possibility of nuclear material from the naval base being incinerated and producing toxic waste was a recurring worry.

5. Visual Impact: 158 correspondents. The scale of the proposed plant and its associated chimney were felt to be too dominant and overbearing and too close to residential areas. Linked to this were criticisms of the design and overall appearance of the development.

6. Close to Schools: 153 correspondents. The impact of the proposed development on local schools was mentioned. This was seen in terms of additional traffic with related noise and fumes and the potential for accidents. Perceived pollution and negative health impacts believed to be associated with incineration were also raised.

7. Outdated Technology: 150 correspondents. It was felt by those who raised this issue that there were more modern waste disposal techniques available such as anaerobic digestion, autoclaving or initiatives to encourage recycling. The burning of waste was not seen as a sustainable use of resources.

8. Consultation Process: 142 correspondents. A number of issues around the consultation process were mentioned. The volume of material to be read through and the timescale were most often mentioned as was the belief that local councillors were excluded from parts of the decision making process. Concerns about the lack of transparency around the way the site was chosen were discussed. Other issues referred to were access to MVV roadshows, the use of German text in parts of some technical documents and suggestions that the site address was incorrect.

9. Noise from Plant: 108 correspondents. People writing in on this subject pointed out that they already suffered from a level of noise pollution from the

nearby dockyard but that this was of an intermittent nature. It was felt that the plant would produce an increase in background noise and that this would be present throughout the day and every day the plant operated which could lead to an increase in stress and depression.

10. Dangerous Location: 71 correspondents. The proximity of the plant to the dockyard and specifically the decommissioned nuclear submarines stored there was raised. Connected with this were concerns that this proximity could make the plant a target for some kind of terrorist attack. There were also concerns that in the event of an accident the chimney could fall and block the main railway line or flooding from the contaminated waters of Weston Mill Lake.

11. Costly to run facility: 66 correspondents. The funding of the project through the Private Finance Initiative was mentioned as a possible cause of long term financial difficulties for the City Council. The rising cost of fuel for transport and the impact this would have on the economics of carrying waste to, and by-products from, the plant was also discussed.

12 Contrary to National/Regional/City Policies: 54 correspondents. Many people were of the opinion that the proposals were contrary to various policy documents. Most frequently mentioned was the Localism Act, at the Bill stage for most of the consultation period. Also mentioned was the waste hierarchy set out in Planning Policy Statement 10, Planning for Sustainable Waste Management and the South West Regional Spatial Strategy. At the city level the Plymouth Vision, Waste Development Plan Document, Sustainable Neighbourhoods Development Plan Document and Sustainable Community Strategy were referenced.

13. Property Values reduced: 51 correspondents. This issue was frequently raised. Correspondents also mentioned the current difficulties in selling houses in the area near the proposed plant.

14. Smell: 46 correspondents. Concern was expressed about the smell that would come from the plant and any waste stored there. The impact of the prevailing south-westerly wind carrying any smell across the city was also raised as was the cumulative effect with smells from the nearby sewage treatment works.

15. Threat to Natural Environment: 45 correspondents. Correspondents were worried that the construction work and the subsequent operation of the plant would have an adverse impact on the natural environment. The Tamar Estuaries and South Devon Special Areas of Conservation and the neighbouring Blackies Wood were specifically mentioned.

16. Discourage Recycling: 44 correspondents. There was concern that the construction of the Energy from Waste plant would reduce the incentive for the City Council to promote other recycling initiatives. Waste was seen as a valuable resource and the burning of waste was seen as wrong and would increase the carbon footprint of the city.

17. Hazardous materials produced: 42 correspondents. The issue of the hazardous waste products produced by incineration, particularly Incinerator Bottom Ash, was raised. Concern was expressed about the transport of Incinerator Bottom Ash through the city to landfill sites in the South Hams and the scope for contamination caused by accidents or spillage.

18. Will bring in waste from other areas: 39 correspondents. Correspondents felt that it was wrong that waste from other areas of Devon and Cornwall should be transported through the city to feed the Energy from Waste plant. It was said that the city would become the “dustbin” for the sub-region. Bringing in waste from other areas was seen as generating increased traffic on a congested stretch of road, not sustainable and unfair.

19. Tourism Impact: 36 correspondents. It was felt that the location of the proposed plant, on the River Tamar and visible from the road and rail bridges would create a negative impression of the city and discourage future tourism. The size of the chimney would mean that it would be visible from areas in south east Cornwall and the Tamar Valley.

20. Light Pollution: 35 correspondents. It was felt that the external lighting of the plant would greatly increase light pollution and would have an effect on the quality of life of people nearby. It was also suggested that this would also affect local nocturnal wildlife such as bats and badgers that are protected species.

21. Flood Risk/Rising Sea Levels: 29 correspondents. Concern was expressed that the plant, being built at water level, would be prone to the effects of global climate change specifically rising sea levels.

22. Not a designated waste site: 29 correspondents. It was argued that the North Yard site was never assessed as part of the adopted Waste Development Plan Document and it was not clear how it had been chosen and therefore lacked legitimacy.

23. Terrorist Attack: 23 correspondents. The applicants have stated that waste will not be sorted in the plant and there were concerns that, given the proximity to the naval base, it would be possible to place explosive devices in the waste stream to trigger a larger explosion.

24. Human Rights: 14 correspondents. It was argued that the plant will be responsible for a number of deaths over the period of its operation which were foreseeable and would therefore be contrary to the Human Rights Act that guarantees the right to life.

25. Loss of Light: 13 correspondents. Concern was expressed about the proximity of the plant to neighbouring properties and its impact on local people in terms of loss of light and overshadowing.

26. Inadequate Mitigation obligations: 12 correspondents. It was felt that the scheme to construct the plant to provide cheaper heat and power to the

dockyard had little to recommend it to local people. Various types of mitigation were discussed, including a youth centre, improvements to public transport in the area and local employment schemes.

27. Uncertain Economic Future: 11 correspondents. The long term future of the Devonport Naval Base was mentioned here as was the viability of the plant, given that there are plans for other Energy from Waste for Cornwall and the South Hams.

28. Close to Rehabilitation Centre: 4 correspondents. Correspondents felt that the location of the plant was inappropriate because it would have a detrimental effect on the nearby centre for the therapy of service personnel injured in Afghanistan.

29. Disruption during Construction: 4 correspondents. There would be considerable disruption, noise and dust that would impact on local people, especially those with allergies. This disruption would be in addition to the day to day disturbances associated with living close to a major naval base.

30. Close to Heritage Site: 3 correspondents. Correspondents felt that the plant would have a detrimental effect on the nearby Listed Buildings at HMS Drake.

31. Disputed Ownership: 2 correspondents. Concern was expressed about MVV's title on all the land, the possible difficulty of securing a large site under different ownership and restrictions on local access.

32. Earthquakes: 2 correspondents. It was felt that the plant should be constructed to be earthquake proof.

Issues raised in letters of representation from groups/organisations

Plymouth Green Party

Plymouth Green Party object on the grounds of, noise and smell, visual impact, health of residents from exposure to air borne particles, plant would discourage recycling initiatives, reduction on property values.

South Hams Friends of the Earth

South Hams friends of the earth submitted Two letters of objection. Letter 1 says the site is not an allocated site in the adopted Waste Development Plan Document, so has not been tested by examination, has not been through a consultation process and has not considered wider spatial planning concerns. It goes on to say it is too close to residential areas, schools and important environmental sites. The plant will produce hazardous by-products that will have to be transported by road, creating additional pollution and nuisance. The building design is poor. This is an outmoded waste technology.

Ecolvy

Ecolvy submitted three letters of objection raising the following points: Inappropriate location, potential threat to the Plymouth Sound SAC and South Dartmoor Woods SAC, non-allocated site, poor transport links, increase in

traffic, adverse impact on health, lack of consultation, problems with incinerator bottom ash disposal, outdated technology, does not take into account the waste hierarchy, lack of residential heating scheme.

Members of Parliament

Two letters were received from local MPs. **Alison Seabeck MP (Plymouth Moor View, Labour) objected** on grounds of proximity to schools and homes, increase in noise, commercial viability and air quality. If the scheme were to go ahead local people should receive the benefits from any Section 106 agreement, priority should be given to facilities for young people. **Gary Streeter MP (South West Devon, Cons.) supports the proposal.** The location, close to the naval base and major road network makes it an ideal site. Measures to mitigate the impact on local people should be taken. Sheryl Murray MP (South East Cornwall) passed on comments from local constituents asking that their views be considered.

Babcock International Group

Babcock submitted two letters of support. Letter 1; the plant will supply all the Naval Base's electrical needs at a 20% discount on market price and will allow them to import steam for heating. It will reduce wear and tear on boilers, provide economic stability, reduce CO₂ emissions and provide a greener solution for waste disposal. Letter 2; Naval Base and Dockyard is a major sub-regional industrial centre and employer. Maximising efficiency vital for future, energy cost represent a significant part of operating budget.

South West Devon Waste Partnership (SWDWP)

SWDWP submitted two letters of support. Letter 1: Reliable and proven technology, value for money, diverts waste from landfill, productive use of waste and will improve competitiveness of the Dockyard. Letter 2: Reduce the need for landfill, lack of alternatives in the south west, value for money, will provide cheap electricity to the Dockyard, established road network, local impact needs to be balanced by sub-regional benefits and mitigation will be available.

Planning Aid

Planning Aid ran a drop in event and workshop to look at the Community Benefits set out in the Draft Heads of Terms. Planning Aid is an independent organisation that offers support to local people. This event was attended by approximately 25 people and resulted in a number of ideas and suggestions being submitted for consideration.

Suggestions for Section 106 contributions include:

- The funds need to be in the control of the people in the area, possibly through Councillors or local groups The community fund should be £156,000 per year and index linked
- Need for internet facilities to access monitoring information on the website
- Local liaison committee to continue
- Need for more effective recycling facilities and workshops in schools (Community Liaison Manager)

- Need support for mental health impacts (community fund)
- Conserve high quality landscaping specifically Blackies Wood
- Contribution to nature reserves
- jobs needed for local people

Other suggestions from individuals include:

- Litterbins, youth club, swimming pool, dance club, cinema, lunch club, bingo, keep fit class, cleaning up, shop, dentist, doctor, bus services, tennis court, football field, , bmx track, , football, medical centre dedicated to monitoring health, , access to visitor centre from Barne Barton,, basic skills training, pedestrian crossings in Barne Barton, heating/energy to benefit the local community, community fund needs to 10 times the financial amount suggested by the applicants and it should be index linked. There should be weekly road sweeping in the autumn, transparent monitoring of the emissions control to ensure it is done properly, special collection facilities for harmful substances post office, chemist, and new road with a bridge for Barne Barton, nursery, police presence and a 20mph traffic zone.

8.0 Supporting Assessments to the determination

8.1 The role of Environmental Permits in pollution control

PPS 10 points out that in considering planning applications for waste management facilities, waste planning authorities should concern themselves with implementing the planning strategy in the development plan and the land use planning aspects of a proposal and not with the control of processes which are a matter for the pollution control authorities. The planning and pollution control regimes are separate but complementary. There are however areas of legitimate overlap of responsibility.

Pollution control is concerned with preventing pollution through the use of measures to prohibit or limit the release of substances to the environment to the lowest practicable level. It also ensures that ambient air and water quality meet standards that guard against impacts to the environment and human health.

The Environment Agency received an **environmental permit application** for this proposal in June. The permit must address the operation of this plant and the main issues relate to air quality and impacts on this locality and noise impacts on the locality from the operations at the plant.

Emissions released through the stack would have to be continuously monitored to ensure they meet requirements. They would be enforced by the Environment Agency to ensure that they do not pose an unacceptable risk to the health of the local population. Waste planning authorities should work on

the assumption that the relevant pollution control regime will be properly applied and enforced.

The planning system controls the development and use of land in the public interest and should focus on whether development is an acceptable use of the land, and the impacts of those uses on the development and use of land.

In considering planning applications for waste management facilities waste planning authorities should consider the likely impact on the local environment and on amenity. These can also be concerns of the pollution control authorities and there should be consistency between consents issued under the planning and pollution control regimes.

Modern, appropriately located, well-run and well-regulated, waste management facilities operated in line with current pollution control techniques and standards should pose little risk to human health. The detailed consideration of a waste management process and the implications, if any, for human health is the responsibility of the pollution control authorities. However, planning operates in the public interest to ensure that the location of proposed development is acceptable and health can be material to such decisions.

Where concerns about health are raised, Waste Planning Authorities should avoid carrying out their own detailed assessment of epidemiological and other health studies. Rather, they should ensure, through drawing from Government advice and research and consultation with the relevant health authorities and agencies, that they have advice on the implications for health, if any, and when determining planning applications consider the locational implications of such advice. In turn, the relevant health authorities and agencies will require sufficient understanding of the proposed waste management process to provide considered advice. A concurrent process and a transparent relationship between the planning and pollution control regimes will help facilitate this.

On the 13th December 2011, the Environment Agency indicated that they were minded to issue a permit to the applicant to build and operate an incinerator with a combined heat and power facility at North Yard under the Environmental Permitting (England & Wales) Regulations 2010. The draft permit sets conditions controlling the management, operation and control of emissions from the installation, including the monitoring and reporting of emissions.

The Environment Agency have indicated that they have reached this “minded to” position after a thorough technical assessment of the permit application and all its supporting material, taking account of all relevant considerations and legal requirements. They have stated that they are satisfied that based on the information provided to them that the proposed facility will be constructed and operated in a way that ensures a high level of protection is given to the environment and human health.

The draft permit is attached as Appendix 8. It, alongside a draft decision document explaining how the Environment Agency reached their decision, will be the subject to a public consultation between 19th December 2011 until 3 February 2012. This will include a public drop-in session.

8.2 Alternative sites assessments

The applicants have carried out an alternative sites assessment as part of their application. The Local Planning Authority has considered this and also sought through its own analysis to test and validate the applicants' choice of site

The availability of an alternative site on which to meet the need for development is a material consideration where the proposal is for a large infrastructure project which will inevitably have significant adverse effects and where it is sought to be justified by claimed public benefit. Equally, if the need could be met by a less harmful technology whether on this site or elsewhere then that would be a material consideration.

In 2005, Plymouth City Council (Plymouth City Council) commissioned Entec Ltd. to undertake a site search exercise to identify sites within Plymouth City Council's administrative area with the potential to accommodate waste management facilities. Following this exercise a report was produced detailing the method of site assessment used and the conclusions reached.

As a result of the site assessments, the Entec Report identified 13 sites with some potential for waste management use, of which 5 were concluded to have potential for use as strategic sites for recovery. These findings were used to inform site allocations in the Plymouth Waste DPD.

The North Yard Site was not included for assessment in the Entec Report as the MoD site was not available or the MoD had not indicated that it might be. MVV have applied the assessment methodology used in the Entec Report to the Site and concluded that the Site would have been identified as having potential for waste management development had it been included in the list of potential strategic and local waste management facilities identified in the Entec Report but for the criterion of the presence of housing (within 250m). The North Yard Site does not comply with this criterion for inclusion in the list of strategic sites but it is important to note that the land west of Ernesettle Lane is also located less than 200m from residential properties, yet it was allocated in the Plymouth Waste DPD as a strategic site because there was the opportunity to mitigate amenity impacts. The 250m threshold is not an absolute one but rather the issue of acceptable proximity to residential properties turns on detailed assessment.

Since the Entec report was prepared, Planning Policy Statement: Planning and Climate Change Supplement to Planning Policy Statement 1 (the PPS1 Supplement) (2007) has been published. It sets out a number of criteria that local authorities should take into account when selecting land for development. One of the criteria given is:

“the extent to which existing or planned opportunities for decentralised and renewable or low-carbon energy could contribute to the energy supply of development”

The applicants maintain in their planning application that given updated national policy, this should be a consideration of all future work on the allocation of sites and the North Yard Site would score very highly in relation to such a criterion as ready access to an existing steam network at HMNB Devonport is likely to be available, offering excellent potential for CHP.

The Local Planning Authority has carried out an assessment of the applicant's 'alternative sites assessment' to test and validate the applicant's choice of site and to ensure that adequate consideration has been given to alternative sites in terms of environmental, economic, social and availability/deliverability criteria.

The Assessment appears at Appendix 3.

It is clear that the applicant's overriding justification for their choice of site is its potential to deliver an EFW CHP facility that could be operational at the beginning of the SWDWP contract, so that the benefits of EFW CHP could be delivered in the short, medium and long term and the efficiency and benefits of the plant are maximised. The 'consideration of alternatives' chapter clearly demonstrates that the site at North Yard has the greatest potential for maximising CHP and the benefits that this provides when compared to alternatives. Furthermore it is acknowledged that in order to maximise the efficiency of Energy from Waste plants as national policy and emerging policy indicates, the provision of CHP, if possible is of significant benefit. It follows therefore that locating an Energy from Waste plant close to a significant heat user or users substantially increases the potential for CHP which is a significant factor in favour of the selection site.

8.3 Flood Risk Sequential Test Assessment

The applicants have carried out a Flood Risk Assessment as part of their application. The Local Planning Authority has had to carry out a Flood Risk Sequential Test Assessment in accordance with PPS25.

Whilst the site of the proposed EFW plant lies within Flood Zone 1, the access is located within Flood Zone 2 defined by Planning Policy Statement (PPS 25) as having a medium probability of flooding.

The applicant provided a comprehensive evidence base to allow the Local Planning Authority to apply the Sequential Test in accordance with advice in PPS25.

Following the application of the Test the officers can confirm that we consider that there are no other sites identified with a lower probability of flooding that are either reasonably available or as suitable for delivering an Energy from Waste plant with CHP. Furthermore it is a small section of access road that falls within flood zone 2 and this comprises less than 5% of the total area of the proposed development. The mitigation proposed as part of the development will raise levels along this section of access road to ensure that the site is located in flood zone 1 post development and ensures that flood

risk elsewhere is not increased. The Environment Agency's response to the application states the following *"the proposals are now considered acceptable provided planning conditions can be included to ensure flood and environmental risks are appropriately managed"* The planning application therefore passes the sequential test. (See appendix 4)

8.4 Habitats Regulations Assessment (HRA)

The EA and the Local Planning Authority are both competent authorities for the purposes of undertaking a Habitats Regulations Assessment. The EA's is in respect of the application for the Environmental Permit. The Local Planning Authority's is in respect of the planning application. Additional information has been obtained from the applicants to help inform each HRA to ensure that all relevant possible effects have been identified and assessed

The potential for likely significant effects upon nearby Natura 2000 sites has been considered in an HRA carried out by Plymouth City Council in accordance with Regulation 61 of the The Conservation of Habitats and Species Regulations 2010 ("the Habitats Regulations 2010").

(see appendix 5)

The planning policy framework for such an assessment is set out in "ODPM Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the Planning System."

The framework for the further assessment of a proposed project, including an assessment of the alternatives, states that further assessment, i.e. **"appropriate assessment"** under Regulation 61 of the Habitat Regulations 2010, is only required where *"the proposal is likely to have a significant effect on the internationally important interest features of the site"*.

Under the regulations the Local Planning Authority should only agree to the planning application after having ascertained that it will not adversely affect the integrity of nearby Natura 2000 sites, i.e. Plymouth Sound & Estuaries Special Area of Conservation (SAC), Tamar Estuaries Complex Special Area of Protection (SPA), South Dartmoor Woods SAC, Dartmoor SAC, Blackstone Point SAC and Prawle Point to Plymouth Sound and Eddystone cSAC.

It has been concluded that no likely significant effects might be occasioned by MVVs proposed Energy from Waste Plant on the Natura 2000 sites. Natural England has stated that they are satisfied with the conclusions of the HRA. As such there is no need for an appropriate assessment of this proposal against Regulation 61 of the Habitats Regulations 2010. (see Appendix 5)

8.5 Health and Wellbeing Assessment (HWBA) and Rapid Prospective Health Impact Assessment (HIA)

Planning Considerations relating to Health and Wellbeing fears in relation to Health and Safety have been expressed in several Letters of Representation and at several events and meetings including at Liaison Group meetings and

during production of the NHS Rapid Prospective Health Impact Assessment (HIA).

These are material considerations but the weight to be accorded to them should reflect the extent to which they are capable of being objectively justified.

The applicant's Health and Wellbeing Assessment (HWBA) is a desk-top review of 'six' key sources of literature and includes a brief discussion of the impact upon selected determinants of health.

The HWBA recognises that the construction and operation of the EfW CHP facility is

perceived to have the potential to impact on the social determinants of mental wellbeing. The HWBA considers the 'direct health impacts' arising from emissions to air, noise and traffic associated with the EfW plant and draws upon internationally recognised standards for the measurement of air quality/emissions, noise and traffic in concluding that the health issues arising from these direct impacts would be mitigated for in the overall MVV design proposal and would be well controlled by the plant design and its management.

NHS response is informed by a rapid prospective Health Impact Assessment (HIA), conducted by NHS Plymouth's Public Health Team. The assessment report was enclosed for Local Planning Authority consideration, as is a summary report in support of suggested mitigation measures for health in relation to Section 106 agreements.(See Appendix7).

8.6 Safety Statement for Proposed EfW Plant at North Yard HMNB Devonport

The Executive Summary of the report is as follows:

The Naval Base Commander Devonport, NBC(D), seeks a sustainable solution to fulfil the Naval Base and their Dockyard Partner's long term energy and waste requirements. An Energy from Waste (EfW) plant has been proposed as a long term sustainable energy solution, providing heat and power to the Devonport site and aligned with the disposal of Devon, Torbay and Plymouth City Council (Plymouth City Council) waste, which currently goes to land fill.

Implementation of an EfW plant and a Combined Heat and Power (CHP) network may introduce new hazards to the Dockyard Site, which consists of the Naval Base and associated commercial Dockyard owned and operated by Babcock. To ensure the plant does not interfere with the operation of the Dockyard Site, new hazards must be identified and managed appropriately.

NBC(D) has requested that a Safety Statement be produced of suitable depth for submission to NBC(D) and Babcock Nuclear Safety Committees.

The hazard assessment described in this report has identified four hazards (faults) with a potential to affect the Dockyard Site. However, it has been

demonstrated that these hazards do not have the potential to have any direct nuclear safety related consequences.

The assessment has concluded that no hazard is likely to arise to the public, NBC(D) and Babcock activities from the build, commissioning, operation and eventual decommissioning of the proposed EfW Plant.

8. Policy Considerations

9.1 European legislation

Guidance on the relevant European Directives and their transposition into UK law is given in the National Policy Statements (NPSs). The principal ones which have been taken into account as relevant in respect of this particular application are those dealing with Climate Change and Sustainability, Renewable Energy, Waste and Landfill, and the Natura 2000 sites. European guidance has influenced many of the standards/assessment methodologies currently accepted as sound practice within Environmental Impact Assessments.

9.2 National Planning Policy Statements

Several representations were made suggesting that the principal purpose of the proposed development is the provision of an Incinerator for the combustion of up to 265,000 tonnes of waste per year rather than energy generation. This proposal is not principally for a waste disposal facility nor is it principally for a power station. It is certainly not for the provision a power station of a scale classified as major Renewable Energy Infrastructure (within s15(2) of the Planning Act 2008) (50MW). This proposal would produce 22.5 MW net output in full electrical mode. This proposal is for Energy from Waste infrastructure with Combined Heat and Power (EfWCHP). The infrastructure would have a multiple role, generating Energy using residual Waste as the fuel (EfW). It would produce both Heat (steam and hot water) and Power (electricity) (CHP) and would involve the provision of electricity and steam to the Dockyard under an Energy Supply Agreement with the rest of the heat capacity used to generate electricity to the national grid. The amount exported to the grid would depend on the dockyard's actual demand on the day for both steam and power.

In contrast, the New England proposal by Viridor is an Energy from Waste plant and is effectively a small power station with limited efficiency in just proposing just to produce electricity for the national grid. In summary, for the purposes of considering the appropriate guidance, the following distinguishes between different kinds of facility:

- an incinerator – it just burns waste
- an Energy from Waste plant – burns waste and could just make electricity (New England)
- an Energy from Waste plant –that burns waste and makes electricity and power (steam and /or electricity) is the nature of the current application within HMNB Devonport - North Yard

The National Policy Statements (NPSs) most relevant to this application are considered to be **PPS1** Delivering Sustainable Development, 2005; **PPS1 (Supplement)** on Climate Change, 2007; **PPS10** Planning for Sustainable Waste Management, 2011 **PPS10 (Companion Guide)** and **PPS22** Renewable Energy, 2004.

A suite of other National Policy Guidance is relevant and has been used to inform the Analysis section of this report. (including PPS 5 Planning for the Historic Environment, 2010; PPS9 Biodiversity and Geological Conservation, 2005; PPG13 Transport; PPS 23 Planning and Pollution Control, 2004; PPS 24 Planning and Noise; PPS25 Development and Flood Risk, 2006).

In addition to the existing suite of National Policy Guidance, recent statements from the Department for Business and Innovation Skills made in March 2011 (HM Treasury; The Plan for Growth) have made it clear that the planning system is now expected to prioritise employment and economic development, and that there will be a “powerful new presumption in favour of sustainable development”.

9.2.1 Planning Policy Statement 1: Delivering Sustainable Development

PPS1 sets out the Government’s objectives for the planning system and national planning policies, including key principles. The key principles are aimed at the delivery of sustainable development, including addressing the causes of climate change, promoting high quality design and efficient use of resources, ensuring that development supports existing communities, ensuring these communities are safe, sustainable and have good access to jobs and key services and protecting and enhancing natural and historic environments.

Paragraph 4 states: “The Government set out four aims for sustainable development in its 1999 strategy.

These are:-social progress which recognises the needs of everyone;-effective protection of the environment;-the prudent use of natural resources; and,-the maintenance of high and stable levels of economic growth and employment. These aims should be pursued in an integrated way through a sustainable, innovative and productive economy that delivers high levels of employment, and a just society that promotes social inclusion, sustainable communities and personal well being, in ways that protect and enhance the physical environment and optimise resource and energy use.”

Paragraph 5 states: “Planning should facilitate and promote sustainable and inclusive patterns of urban and rural development by:

–making suitable land available for development in line with economic, social and environmental objectives to improve people’s quality of life; –contributing to sustainable economic development; –protecting and enhancing the natural and historic environment, the quality and character of the countryside, and existing communities; –ensuring high quality development through good and inclusive design, and the efficient use of resources; and,- ensuring that development supports existing communities and contributes to the

creation of safe, sustainable, liveable and mixed communities with good access to jobs and key services for all members of the community.”

Paragraph 22 states: “Development plan policies should seek to **minimise the need to consume new resources over the lifetime of the development by making more efficient use or reuse of existing resources, rather than making new demands on the environment;** and should seek to promote and encourage, rather than restrict, the use of renewable resources (for example, by the development of renewable energy).**Regional planning authorities and local authorities should promote resource and energy efficient buildings; community heating schemes, the use of combined heat and power, small scale renewable and low carbon energy schemes in developments ;the sustainable use of water resources; and the use of sustainable drainage systems in the management of run-off.**”

Planning and Climate Change: (Supplement to PPS1)

Paragraph 10 States: “Regional planning bodies and all planning authorities should apply the following principles in making decisions about their spatial strategies:

- the proposed provision for new development, its spatial distribution, location and design should be **planned to limit carbon dioxide emissions;**

new development should be planned to make good use of opportunities for decentralised and renewable or low carbon energy;”

Paragraph 27 states: “In considering a development area or site-specific target, **planning authorities should pay particular attention to opportunities for utilising existing decentralised and renewable or low-carbon energy supply systems and to fostering the development of new opportunities to supply proposed and existing development.....** Where there are existing decentralised energy supply systems, or firm proposals, **planning authorities can expect proposed development to connect to an identified system, or be designed to be able to connect in future.....**”

Paragraph 28 states: “When specifying requirements for new development to secure energy from decentralised and renewable or low-carbon energy sources, **planning authorities can set specific requirements to facilitate connection.** Any requirement must be fair and reasonable and, in particular, not restrict those with responsibility for providing energy to new development, or the occupiers, to any one energy provider in perpetuity.”

Paragraph 42 states “In their consideration of the environmental performance of proposed development, taking particular account of the climate the development is likely to experience over its expected lifetime, **planning authorities should expect new development to:**

- **take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption,** including maximising cooling and avoiding solar gain in the summer; and, overall, be planned so as to minimise carbon dioxide emissions through giving careful consideration to

*how all aspects of development form, together with the proposed density and mix of development, **support opportunities for decentralised and renewable or low-carbon energy supply;***

The comments below relate to the above and a full analysis is given in section 10.

The proposed EFW CHP facility would divert waste from landfill, using this waste as a resource by **maximising its potential to generate renewable energy and heat** and is in respect vacant and previously infilled land

The plant would be located adjacent to a very significant energy user within the City at the Dockyard, as well as close to a much wider urban area.

The proposal would involve the provision and/or improvement of local facilities; a high standard of sustainable design and landscaping; support for the local economy, local employment opportunities and enhancements to the local environment.

How the proposal performs in terms of protecting both the natural and urban environment is addressed in section 10.

9.2.2 Planning and Climate Change: (Supplement to PPS1)

This covers the need to consider opportunities for renewable or low carbon energy supply and supporting infrastructure during the planning process.

Paragraph 9 states: *“To deliver sustainable development, and in doing so a full and appropriate response on climate change, regional planning bodies and all planning authorities should prepare, and manage the delivery of, spatial strategies that:*

- make a full contribution to delivering the Government’s Climate Change Programme and energy policies, and in doing so contribute to global sustainability;*
- in providing for the homes, jobs, services and infrastructure needed by communities, and in renewing and shaping the places where they live and work, **secure the highest viable resource and energy efficiency and reduction in emissions;***
- deliver patterns of urban growth and sustainable rural developments that help secure the fullest possible use of sustainable transport for moving freight, public transport, cycling and walking; and, which overall, reduce the need to travel, especially by car;*
- **secure new development and shape places that minimise vulnerability,** and provide resilience, to climate change; **and in ways that are consistent with social cohesion and inclusion;***
- conserve and enhance biodiversity, recognising that the distribution of habitats and species will be affected by climate change;*
- reflect the development needs and interests of communities and enable them to contribute effectively to tackling climate change; and*
- respond to the concerns of business and encourage competitiveness and technological innovation in mitigating and adapting to climate change.”*

Paragraph 10 states: *“Regional planning bodies and all planning authorities should apply the following principles in making decisions about their spatial strategies:*

- the proposed provision for new development, its spatial distribution, location and design should be **planned to limit carbon dioxide emissions**;
- **new development should be planned to make good use of opportunities for decentralised and renewable or low carbon energy;**

Paragraphs 23 and 24 state: “In deciding which areas and sites are suitable, and for what type and intensity of development, planning authorities should assess their consistency with the policies in this PPS. In doing so, planning authorities should take into account: the extent to which existing or planned opportunities for decentralised and renewable or low-carbon energy could contribute to the energy supply of development;

Paragraph 27 states: “In considering a development area or site-specific target, planning authorities should pay particular attention to opportunities for utilising existing decentralised and renewable or low-carbon energy supply systems and to fostering the development of new opportunities to supply proposed and existing development..... Where there are existing decentralised energy supply systems, or firm proposals, planning authorities can expect proposed development to connect to an identified system, or be designed to be able to connect in future.....”

Paragraph 42 states: “In their consideration of the environmental performance of proposed development, taking particular account of the climate the development is likely to experience over its expected lifetime, planning authorities should expect new development to: -comply with adopted DPD policies on local requirements for decentralised energy supply and for sustainable buildings, unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable; -take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption, including maximising cooling and avoiding solar gain in the summer; and, overall, be planned so as to minimise carbon dioxide emissions through giving careful consideration to how all aspects of development form, together with the proposed density and mix of development, support opportunities for decentralised and renewable or low-carbon energy supply; -deliver a high quality local environment;-provide public and private open space as appropriate so that it offers accessible choice of shade and shelter, recognising the opportunities for flood storage, wildlife and people provided by multifunctional greenspaces; -give priority to the use of sustainable drainage systems, paying attention to the potential contribution to be gained to water harvesting from impermeable surfaces and encourage layouts that accommodate waste water recycling; -provide for sustainable waste management; and -create and secure opportunities for sustainable transport in line with PPG13 including through: -the preparation and submission of travel plans; -providing for safe and attractive walking and cycling opportunities including, where appropriate, secure cycle parking and changing facilities; and-an appropriate approach to the provision and management of car parking.”

The comments below relate to the above and a full analysis is given in section 10.

The proposed EFW CHP facility would provide waste management infrastructure for managing the residual waste generated by the communities of Plymouth City, Torbay, West Devon, Teignbridge and South Hams. The proposed EFW CHP facility would recover energy from waste and would generate renewable energy and minimise carbon dioxide from fossil fuel sources associated with the current and future operation of the Naval Base and Dockyard. The potential carbon savings would be in terms of diverting the waste stream away from landfill, but also the use of energy generated in the form of heat or electricity, which displaces carbon from other sources.

9.2.3 PPS10: Planning for Sustainable Waste Management

PPS10 sets out government planning policy on waste management. The government's stated overall objective is to protect human health and the environment by producing less waste and by using it as a resource wherever possible. PPS10 states that the government aims to break the link between economic growth and the environmental impact of waste by moving waste management up the waste hierarchy. Emphasis is placed on the need for positive planning to achieve sustainable waste management (paragraph 2) *"...by providing sufficient opportunities for new waste management facilities of the right type, in the right place and at the right time"*.

PPS10 includes a number of key planning objectives, which are summarised below.

- Drive waste management up the waste hierarchy.
- Communities taking more responsibility for their own waste, involving sufficient and timely provision of new facilities.
- Implementation of the national waste strategy and supporting targets.
- The recovery of waste without endangering human health and without harming the environment and enabling waste disposal in one of the nearest appropriate installations.
- Reflecting the concerns of stakeholders in waste management.
- Recognition that the particular locational needs of some waste management facilities, together with the wider environmental and economic benefits of sustainable waste management, are material considerations that should be given significant weight in determining whether proposals should be given planning permission.
- Ensuring sustainable waste management is built into new development.

When identifying potential sites for waste management facilities, PPS10 recommends that Waste Planning Authorities (WPAs) should consider a broad range of locations, including industrial sites, looking for opportunities to co-locate facilities together and with complementary activities (paragraph 20); and give priority to the use of previously developed land. PPS10 also states that planning applications for waste developments on sites that have not been allocated for waste use in the development plan should be considered favourably when consistent with PPS10 and the Waste Planning Authority's Core Strategy (paragraph 24). Paragraph 25 states that in the case of waste disposal facilities, applicants should be able to demonstrate that the envisaged facility will not undermine the waste planning strategy through prejudicing movement up the waste hierarchy.

The statement identifies that waste management should be considered alongside other spatial planning concerns, such as transport, housing, economic growth, natural resources and regeneration, and the positive contribution that waste management can make to the development of sustainable communities should be recognised (paragraph 4).

It is considered that the facility would contribute to the government's sustainable waste management objectives by moving waste management up the waste hierarchy, helping to implement national and regional targets for diversion of waste from landfill. The facility would deal with residual municipal waste, and thereby would not prejudice recycling strategies for the movement of waste up the waste hierarchy.

Although not a site identified for a waste facility in the development plan, the site for the EfW plant is previously tipped and compacted dockyard land in a location that should enable waste to be processed in a facility close to the South West Devon communities it would serve and be close to potential customers for the heat and electricity generated by the facility and in accordance with development plan policies.

There would be wider environmental and economic benefits by providing enhancements to local biodiversity and a boost to safeguarding the competitiveness of the naval base and dockyards, providing local employment and training opportunities. The adverse impacts are capable of being adequately mitigated and the provision of community benefits and resources and multi functional greenspace would make a positive contribution towards the development of a sustainable neighbourhood. As such it is considered that the proposal would be in general compliance with PPS10.

9.2.4 Planning Policy Statement (PPS) 22, Renewable Energy (August 2004)

PPS22 contains the following provisions:

Increased development of renewable energy resources is identified as vital to facilitating the delivery of the Government's commitments on both climate change and renewable energy.

Positive planning which facilitates renewable energy developments is seen as contributing to all four elements of the Government's sustainable development strategy (pg 6, The Governments Objectives):

- social progress which recognises the needs of everyone – by contributing to the nation's energy needs;
- effective protection of the environment – by reductions in emissions of greenhouse gases and thereby reducing the potential for the environment to be affected by climate change;
- prudent use of natural resources – by reducing the nation's reliance on ever diminishing supplies of fossil fuels; and,
- maintenance of high and stable levels of economic growth and employment – through the creation of jobs directly related to renewable energy developments, but also in the development of new technologies.

The wider environmental and economic benefits of all proposals for renewable energy projects, whatever their scale, are material considerations that should be given significant weight in determining whether proposals should be granted planning permission (paragraph 1.iv).

Development proposals should demonstrate any environmental, economic and social benefits as well as how any environmental and social impacts have been minimised through careful consideration of location, scale, design and other measures (paragraph 1.viii).

The comments below relate to the above and a full analysis is given in section 10.

It is considered that the proposal at North Yard would be in accordance with PPS22. The proposed EFW CHP facility would contribute to global sustainable development objectives by mitigating the climate change impacts of waste disposal by diversion of waste from landfill, using this waste as a resource by **maximising its potential to generate renewable energy and heat**. The plant is well located adjacent to a very significant energy user within the City at the Dockyard, as well as having the potential to serve and supply uses over a much wider area, through a wider District Energy network providing potential economic, social and environmental benefits for the wider Plymouth area. The proposal is considered to address global as well as local sustainability objectives.

It will achieve a high standard of sustainable design and landscaping; supporting the local economy and by providing local employment opportunities and making appropriate enhancements to the local environment. The impacts are capable of being addressed by mitigation.

9.2.5 Whether general compliance with the draft National Planning Policy Framework (NPPF)

The draft NPPF does not specifically cover waste matters as these will be included within the National Waste Management Plan. Until this time, PPS10 will remain in place. However Local Authorities should have regard to policies set out in this framework.

The consultation draft is not adopted policy but in its guidance to Planning Inspectors The Planning Inspectorate states:

“Whilst it is a consultation document and, therefore, subject to potential amendment, nevertheless it gives a clear indication of the Government’s ‘direction of travel’ in planning policy. Therefore, the draft National Policy Planning Framework is capable of being a material consideration, although the weight to be given to it will be a matter for the decision maker’s planning judgement in each particular case. The current Planning Policy Statements, Guidance notes and Circulars remain in place until cancelled”

The draft NPPF does specifically state the importance of planning strategically across Local Authority boundaries. This duty to cooperate is reflected in the North Yard proposal by providing strategic waste management capacity to meet the needs of three Authorities.

The draft NPPF sets out a set of core land-use planning principles that should underpin both plan-making and development management and should be taken into account by all those engaged in the planning system, from local authorities and developers through to communities. One of these core principles states:

“planning policies and decisions should enable the reuse of existing resources, such as through the conversion of existing buildings, and encourage, rather than restrict, the use of renewable resources (for example, by the development of renewable energy)”

The Draft National Planning Policy Framework (NPPF) also states that the 'Government's objective is that planning should fully support the transition to a low carbon economy in a changing climate, taking full account of flood risk and coastal change. To achieve this objective, the planning system should aim to: secure, consistent with the Government's published objectives, **radical reductions in greenhouse gas emissions**, through the appropriate location and layout of new development, and active support for energy efficiency improvements to existing buildings and **the delivery of renewable and low-carbon energy infrastructure**'.

It goes on to state they should 'have a positive strategy to promote energy from renewable and low-carbon sources, including deep geothermal energy', they should 'consider identifying suitable areas for renewable and low-carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources' and '**identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers**'.

It is considered that the proposal at North Yard is consistent with the draft National Policy Framework and the guidance which planning authorities should follow in determining planning applications. The proposed EFW CHP facility would contribute to reductions in greenhouse gas emissions by diversion of waste from landfill, and displacing carbon from other fuel sources in the provision of heat or power to the Dockyard. The plant is well located adjacent to a very significant energy user within the City at the Dockyard, as well as having the potential to serve and supply uses over a much wider area, through a wider District Energy network providing potential economic, social and environmental benefits for the wider Plymouth area.

The proposed plant as currently designed and configured does meet the Good Quality CHP standard and is therefore amongst the most efficient in the UK. The design and location of the EFW plant, together with contributions towards the delivery of a wider supporting low carbon infrastructure in the longer term, will help to ensure that the efficiency of the plant in energy terms and associated carbon savings can be maximised, having the potential to supply a wider area in the longer term. The impacts can be adequately mitigated.

9.3 The Development Plan Policies Relevant to the Application

The development plan for Plymouth comprises the Regional Strategy for the South West (RS) (formerly RPG10) (2001), the Council's adopted Core Strategy (2007) Plymouth Waste Development Plan 2006 – 2021 (Adopted 2008) and adopted Area Action Plans/Development Plan Documents including Supplementary Planning Documents. (SPDs).

Emerging Local Development Framework documents within the city are also a material consideration when determining planning applications, although the weight attached to them depends on the progress they have made towards adoption. It was originally envisaged RPG10 would be superseded by an updated RS. In a letter dated 27 May 2010, the Secretary of State confirmed that the draft South West RS (2006) had reached a significantly advanced

stage that it should now be regarded as a material consideration. In addition to this, the Panel's Report (2007) and the Secretary of State's Proposed Changes to the draft South West RS (2008) are also material considerations when determining planning applications.

It is well documented that the new coalition Government intends to abolish Regional Strategies and strategic policy decisions will rest with local planning authorities. However, until Regional Strategies are abolished they remain a component of the development plan with which development proposals should accord unless material considerations indicate otherwise.

The recently enacted Localism Act 2011 contains provisions enabling the Secretary of State to revoke Regional Strategies. It is clearly the Government's intention to use this power. In order to do so, however, the Government must conduct environmental assessments into the effect of the revocation of Regional Strategies, and consult on the results for a period of 12 weeks. This process is underway now - the environmental assessments were published in October 2011 and will be subject to consultation until January 2012. Following consultation and the consideration of any comments received, the Government will lay orders before Parliament setting out the intention to revoke all Regional Strategies. The Government has stated that it expects these orders to take effect from spring 2012.

Given that the outcome of this process cannot be predicted, the weight to be accorded to the relevant Regional Strategy policies should not be reduced. In any event, to the extent that they are material, they substantially reflect national policy as contained in the PPS and PPG advice.

In relation to the draft Regional Strategy policies, in so far as they are relevant to the determination of this application they reflect relevant extant national policy guidance and/or are supported by a robust evidence base and are entitled to be given material weight although it is now unlikely that they will ever be approved.

9.3.1 RPG10 (Regional Planning Guidance for the South West) 2001

Policies relevant to the determination of this application include EN1 Landscape and Biodiversity; EN5 Health, education, safety and other social infrastructure, RE2 Flood Risk. Those particularly relevant to the determination of this application and commented upon here are:

VIS1 Expressing the Vision; VIS 2 Principles for Future Development; RE5 Management and Transportation of Waste and RE6 Energy Generation and Use

The vision outlined in RPG 10 **Policy VIS1** is to promote a sustainable pattern of development and set out a sequential approach to the location of development. It seeks to minimise the need to develop on greenfield sites and to travel; promote development on previously developed land to benefit urban areas and ease pressure on rural development and concentrate growth at the Principal Urban Area (PUA). RPG10 defines Plymouth as a Principal Urban Area (PUA).

Policy SS2 'Regional Development Strategy', directs the majority of development to the PUA as the most sustainable way of accommodating growth.

It is considered that the proposed development is in general accordance with policy VIS 1 and Policy SS2, as the facility would be located primarily on previously developed land; within the PUA of Plymouth, where the largest amount of waste arises – minimising the distance that is required to transport waste and reducing the need to develop on greenfield land.

Policy VIS 2 sets out the principles for future development that seek the development of suitable previously developed land and other appropriate sites in Urban areas as a first priority for urban-related uses. It also seeks to ensure that land is used efficiently, that development is well designed, environmental assets are conserved and enhanced and flood risk is reduced and minimised.

It is considered that the proposed development is in general accordance with these principles as the facility would be in an appropriate urban area, largely on previously developed land and would represent an efficient use of previously tipped and compacted dockyard land, given the opportunities for CHP arising from the location. It is considered that the development would be to a high standard of design and would help conserve valuable woodland and greenspace features whilst minimising flood risk to people and properties.

Policy RE5 set out objectives for the Management and Transportation of Waste in the region and states that waste planning, disposal and collection authorities, the EA and waste management and water companies should cooperate to: Establish a mix of waste recovery methods e.g. recycling, composting, energy recovery etc, regionally and sub-regionally, that will reduce reliance on landfill and will avoid creating over-reliance on any one method or facility; Pursue Regional targets, give priority to provision of waste management facilities that will recover value from waste at or near the PUA's and take account of the waste management requirements of their neighbouring county areas.

It is considered that the application has the support of a range of waste management authorities working together to enable the proposed facility to help realize the objectives of Policy RE5. It would provide a sub-regional facility located in the Plymouth PUA that would recover valuable energy (in the form of heat and electricity) from residual municipal waste. There is no evidence to suggest that the proposed development would compromise efforts to achieve or surpass recycling and composting targets (further recycling initiatives are set out in the letter from Director of Community Services –see section 7) and would also make a substantial contribution to the targets for diverting waste from landfill and recovering energy from waste. (See section – below)

Policy RE6 sets out objectives for energy generation and use and states that Local Authorities, energy suppliers and other agencies should support and encourage the region to meet national targets for; reduction in greenhouse gas emissions; electricity production from renewable energy and to encourage

and promote CHP and their integration into new build or redevelopment proposals.

The proposed facility would help to reduce greenhouse gas emissions by diverting waste from landfill, reducing the distance it is necessary for waste to travel for disposal and displacing the burning of fossil fuels for the production of heat and electricity. The proposed facility would generate low-carbon electricity and heat to the Devonport Naval Base as well as having the potential to serve and supply uses over a much wider area, through a wider District Energy network providing potential economic, social and environmental benefits for the wider Plymouth area. The proposed development would therefore make a positive contribution to achieving the objectives set out in Policy RE6.

ENV1 'Protecting and Enhancing the Region's Natural and Historic Environment' is concerned with loss or damage to the region's assets and need to compensate for loss or damage through offsetting actions. ENV3 is concerned with conserving and enhancing the region's Areas of Outstanding Natural Beauty.

The proposed development will result in moderate impacts for the landscape character of this area, (described as "The HMS Dockyard" area in the applicants' detailed landscape character assessment). The proposed building would complement the very large scale industrial buildings that already exist. The landscape character is derived from these existing very large scale buildings, docks, and ships and has been assessed as of low sensitivity to change. The proposal does not form part of the historic composition of historic buildings in this context. English Heritage has been consulted on this application and their response concludes that the proposal will not result in any significant impacts upon the historic assets.

Therefore on balance with the proposed mitigating measures it is not considered that these proposals will result in overriding loss or damage to the region's environmental or historic assets.

ENV3 Protected Landscapes In Dartmoor and Exmoor National Parks and the 14 Areas of Outstanding Natural Beauty in the region, the conservation and enhancement of their natural beauty, wildlife and cultural heritage will be given priority over other considerations in the determination of development proposals.

ENV3 is concerned with conserving and enhancing the region's Areas of Outstanding Natural Beauty. It is considered that the proposal would not have a damaging effect upon the Tamar Valley AONB as the building would be sited well within a dockyard setting of ships, cranes and large buildings or upon the setting of listed buildings within the Naval Base. The building would be a noticeable feature when seen from some Cornish viewpoints but it is considered that it would not be a significant adverse visual effect contrary to regional planning policies (see 10.6)

ENV 5 Historic Environment The historic environment of the South West will be preserved and enhanced.

Local authorities and other partners will identify and assess the significance of the historic environment and its vulnerability to change, using characterisation to understand its contribution to the regional and local environment and to identify options for its sensitive management.

Whilst undoubtedly large, the current proposed building may be seen as an addition to the large structures already evident in the dockyard. The relationship between the proposed development and the group of listed buildings at HMS Drake and the applicants Cultural Heritage assessment considered that the significance of the setting of the listed buildings would be preserved. It is considered that the proposals would not impact on views of one building to another or the parade ground and therefore on the significance of the historic structures as a group. English Heritage were consulted on this application and considered whether there might be a potential to impact on the setting of the group of listed buildings of HMS Drake (one grade II* structure and a number of grade II structures) but they concluded that there are some sizeable structures between HMS Drake and the site of the proposed facility and as a result determined that they had no grounds for objection.

9.3.2 Whether general compliance with the Emerging Regional Spatial Strategy for the South West (Incorporating Secretary of State's Proposed changes) 2008 Draft Revised Regional Spatial Strategy for the South West.

It is considered that Policies ENV1 Protecting and Enhancing the Region's Natural and Historic Environment; ENV3 Protected Landscapes; ENV4 Nature Conservation; F1 Flood Risk; RE8 Woods and Forests; RE9 Air Quality are relevant.

Ones that are considered to be particularly relevant to a determination of this particular application and commented upon here are considered to be

SD1 The Ecological Footprint; **SD2** Climate Change; **SD3** The Environment and Natural Resources; **SD4** Sustainable Communities **RE1** Renewable Electricity Targets 2010 and 2020; **RE3**: Renewable Heat targets; **RE9** Air quality **W1** Provision of Waste Sites; **W2** Waste facilities and the Waste Hierarchy; **W4** Controlling reusing and recycling waste in development

Although the draft RS for the South West has not been adopted, it has been a consideration in the determination of planning applications. The evidence upon which the policies were based is still relevant and robust. This evidence still demonstrates the need to focus new facilities on the principal urban areas which the proposals at North Yard would provide for.

Although it appears very improbable that the draft RS will now proceed to approval in view of the enactment of the Localism Act, in so far as its policies are relevant to the determination of this application, given the evidence base underlying them remains sound, they are entitled to material weight. .

Draft **Policies SD1-SD4** of the South West RS highlight the importance of sustainable communities, taking into account Climate Change and protecting and enhancing the region's environment and natural resources.

It is considered that the proposed development would respect environmental limits and would make a positive contribution to the creation of a sustainable, low carbon economy, consistent with **Policy SD1**, through:

- reducing the consumption of key resources including water (through recycling of waste water) and minerals (bottom ash would be recycled as a construction aggregate and waste metals would also be recycled);
- implementing sustainable design and construction principles and achieving a BREEAM rating of 'Excellent'; and
- managing waste close to where it arises, thereby reducing the distances waste is required to travel;
- reducing reliance on the private car for commuting, by providing secure cycle parking facilities; and
- the recovery of electricity and heat from residual municipal waste, generating low carbon renewable energy and contributing to national and regional renewable energy targets.

Policy SD 2 It is considered that the proposed development would contribute to the reduction of greenhouse gas emissions by diverting residual waste from landfill and by generating low carbon electricity and heat, reducing reliance on high-carbon alternatives. The development proposals have also taken full consideration of the identified flood risk and it is considered that appropriate mitigations have been made, including addressing the impacts of climate change (for example by raising site levels)

Policy SD 3 It is considered that the proposed development has been designed to take account of its surroundings and minimise impact on the historic and natural landscape and associated environmental features. The scale of the main building is well related to the wooded valley-like nature of the site and well designed to take account of overlooking from surrounding areas.

Essential mitigation measures would be required to ensure that the risk of pollution or contamination arising from the development is minimised and avoided.

It is considered that proposals to enhance biodiversity and manage local habitats and valuable features (Blackies Wood, adjacent watercourses) are essential parts of an acceptable development.

Policy SD 4 It is considered that the proposals would make use of existing infrastructure (Naval Base Steam System), contribute to enhancing education, skills development and training - through the provision of visitor education facilities and apprenticeships for local people. The proposals will contribute to the local economy through direct employment and have positive multiplier effects on the local economy and reduce the distance that waste would travel

to avoid landfill. It is considered that the development proposals are generally consistent with policy SD4

Policy CSS and Development Policy A 'Development at the Strategically Significant Cities and Towns' confirms RPG10 Policy SS 2 'Regional Development Strategy' by directing major development to Strategically Significant Cities and Towns (SSCTs) including Plymouth, and acknowledges that their regional and sub-regional functions are important and need to be maintained and enhanced.

It is considered that the proposed major development would be appropriately located within Plymouth, a SSCT, in accordance with Development Policy A.

Draft RS **Policy W1** states that WPA's should make provision for a network of strategic and local waste collection, transfer, treatment and disposal sites to meet indicative allocations of capacity needed in sub-regions by the years 2010, 2013 and 2020.

The proposed facility is a response to the need for a strategic sub-regional waste management facility to manage residual municipal waste arising from the SWDWP area. The facility would contribute to the achievement of targets set out by policy W1.

Draft RS **Policy W2** establishes a hierarchical approach to the location of waste management facilities, stating that waste should be managed as close as practicable to where it arises and that new strategic waste management facilities should be located at SSCT's (of which Plymouth is one), in accordance with the following sequential preference:

- Within, or if that is not practicable;
- On the edge of, or if that is not practicable;
- In close proximity to the urban area primarily served by the facility.

Policy W2 also states that the identification of sites will take account of a series of further considerations, including:

- Established and proposed industrial sites, in particular those that have scope for the co-location of complementary activities, such as proposed resource recovery parks;
- Other previously developed land, including use of mineral extraction and landfill sites during their period of operation for the location of related waste treatment activities;
- Opportunities for connection to the rail network;
- Opportunities to maximise efficiency through use of by-products of the waste management process in other processes, e.g. waste heat and/or materials.

It is considered that the proposal at North Yard would accord with Policy W2 with respect to both proximity to arisings and the sequential approach to the location of waste facilities in SSCT's. It is considered that the proposed facility is also in accordance with the first, second and fourth criteria, (See

section 7 –Transport Unit comments on the potential for connection to rail and sea) as the proposal would be situated largely on previously developed land, adjacent to complementary industrial activities that are major users of process heat and within the SSCT of Plymouth.

The proposal involves the generation of heat through a connection to the existing district heating infrastructure at the dockyard. The potential to use heat is a key opportunity of this proposal, particularly as it is understood that this infrastructure is not generally widespread, and can be uneconomical to deliver in many cases.

Policy W4 seeks to control re-use and recycle waste in development and the applicant has demonstrated how waste materials will be managed over the

lifetime of the development. It is considered that the application is in accordance with the provisions of Policy W4.

Policy RE1: Renewable Electricity targets, sets a regional target of 509-610 MWe of onshore renewable electricity generation by 2010, including 151MWe in Devon, and a regional target of 850MWe, the equivalent to 20% of the region's energy demand by 2020.

Policy RE3: Renewable Heat targets, sets a target of 100 and 500 MWth of renewable heat to be produced/utilised in the region by 2010 and 2020 respectively. These policies relate to themes of sustainability and macro-environmental impacts.

The proposed facility would make a positive contribution to the achievement of these targets through the provision of heat and power through CHP to the Dockyard. The proposed plant as currently designed and configured does meet the Good Quality CHP standard and is therefore amongst the most efficient in the UK. The design and location of the EfW plant, together with contributions towards the delivery of a wider supporting low carbon infrastructure in the longer term, will help to ensure that the efficiency of the plant in energy terms and associated carbon savings can be maximised, having the potential to supply a wider area in the longer term

Policy RE9: deals with air quality and seeks to ensure that the impacts of development proposals on air quality must be taken into account. The assessment of the application by PPS indicates that air quality issues have been satisfactorily addressed. It is considered that the application meets the requirements of Policy RE9.

9.3.3 Plymouth Core Strategy 2006 – 2011 (Adopted April 2007)

Policies CS02, CS03, CS04, CS07, CS14, CS18, CS19, CS20, CS21, CS22, SO13 and CS25, CS26 CS28, CS32, CS33 and CS34 are considered to be particularly relevant and are commented upon below:

Policy CS02 "Design", states that new development should be well designed to respect the character, identity and context of Plymouth's historic townscape and landscape and in particular Plymouth's unique waterfront, its moorland setting and the settlement pattern.

Policy CS02 sets out 3 key points which the design team were advised to pay particular attention to, these 3 points stated that new development should:

- 1.Promote the image of the city, through enhancement of international, city and local gateway locations and key approach corridors.
- 2.Protect important local and longer-distance views and
- 3.Contribute positively to an area's identity and heritage in terms of scale, density, layout and access.

In respect of point 1, the site is screened by the Weston Mill viaduct and embankment from the St Budeaux Bypass with Wolseley Road, which is a main city approach from north and the A38, but is adjacent to the main Great Western railway line that provides an important link between London and the South West Region. The scale of the Main building would be mitigated through both design and landscaping and by providing an important landmark structure and a unique and positive image for the city.

With reference to point 2, A landscape and visual impact assessment (LVIA) has been carried out and assessed to demonstrate how important views can be protected (see section 10).

And with regard to point 3, Being located as it is within the MOD Devonport North Yard, naval and nautical references have been integrated into the design solution to provide a landmark building. The main building is also sited close to a wooded valley-like area and landscaping is proposed to mitigate the scale of the structure in the locality.
(A full analysis is given in section 10.)

The following policies are also relevant to an assessment of the application (see section 10): **CS03** Historic Environment; **CS04** Future Employment Provision; **CS05** Development of existing sites; **CS12** cultural/leisure development considerations; **CS18** Plymouth's Green Space; **CS19** Wildlife; **CS20** sustainable resource use; **CS21** Flood risk; **CS22** Pollution; **SO13** Strategic Objective 13 defines the objectives for the delivery of sustainable waste management in Plymouth, stating that a spatial planning framework in the LDF should be established that supports the **Regional and Council's Municipal Waste Management Strategy (MWMS)**, helping to enable people and businesses to produce less waste and provide long-term sustainable waste management.

Criterion 3 states the Authority needs to allocate *"sufficient and appropriate land within the city that is capable of accommodating a range of strategic waste management and treatment facilities. Providing sufficient capacity to meet Plymouth's needs and, if possible, additional capacity to manage and treat waste from adjoining areas."*

Criterion 5 states that the Authority will provide *"a positive planning policy framework that enables sustainable waste-related development, which will have an acceptable impact on local and global environmental quality."*

Policy CS25 sets out the strategic policy for the provision of waste management facilities in Plymouth, stating that the Council will facilitate the provision of new or enhanced waste management facilities to manage waste

arising in the city and potentially from adjoining areas through the allocation of sufficient land for strategic and non-strategic waste facilities to meet this need. This policy addresses the need for the development of new waste management facilities.

Policy CS25 identifies 5 locations in the city which the Waste DPD should explore potential to accommodate Strategic Waste Management facilities: Coypool, Chelson Meadow, Moorcroft Quarry, Prince Rock and Land west of Ernesettle.

The Core Strategy indicates that the detail of site allocations would appear in the Waste DPD and that they will be informed by the emerging Municipal Waste Management Strategy, which would provide a better indication of the potential types and scale of facilities needed.

The Core Strategy also indicates that this policy will be implemented primarily through the allocation of sites in the Waste Development Plan Document and reflected in the appropriate Area Action Plans. However, the policy will also be used where appropriate in the consideration of planning applications.

Although North Yard was not identified at that time, the final sentence of Policy CS25 states that: "Priority will be given in the allocation of sites and the consideration of planning applications to previously developed or existing industrial sites". In this context, it is in accordance with policy to give some priority to the consideration of planning applications for waste facilities on this particular dockyard site.

Policy CS26 states that the Council will promote sustainable waste management by promoting waste minimisation, establishing a policy framework for the control of waste management development, providing guidance on minimising potential impacts of waste and working with neighbouring authorities to identify and promote waste management sites close to Plymouth in their waste development plans. In summary, this policy promotes sustainable waste management in Plymouth.

The proposals would accord with the Municipal Waste Management Strategy, and would be part of an integrated waste management solution in accordance with a waste management partnership with neighbouring authorities. Conditions and obligations are warranted in respect of this particular application to secure a sustainable development, minimise impacts and achieve environmental enhancements and community benefits.

The following policies are also relevant to an assessment of the application (see section 10): **CS28** Local Transport Considerations; **CS32** Designing out Crime; **CS33** Community Benefits/Planning Obligations (see section 11)

Policy CS34 "Planning Application Considerations". This policy informs how we generically judge planning applications and it states that consent will be granted for development that is compatible with its surroundings in terms of style, siting, layout, orientation, visual impact, local context and views, scale, massing, height, density materials and detailing". All relevant considerations need to be addressed – considerations are listed and include ensuring public safety. (see section 10)

9.3.4 Plymouth Waste Development Plan 2006 – 2011(Adopted 2008)

Policies W1 – W6 are considered to be particularly relevant and are commented upon below:

The Plymouth Waste Development Plan Document sets out policies and identifies sites to facilitate the fulfilment of **Plymouth's waste management strategy** and the delivery of Strategic Objective 13 of the Core Strategy.

An important role for the Waste DPD is to assist the delivery of the Council's MWMS, by identifying where the types of waste management facility identified in the MWMS should be provided. The MWMS also establishes a framework for the procurement of infrastructure and services, in whole or part, for municipal waste collection, management and treatment. The Council may have a role in facilitating the delivery of sites, e.g. through Compulsory Purchase or direct provision of land already in Council ownership, but the infrastructure and services are likely to be provided by the private sector as part of a long term waste management contract.

The Waste DPD needs to be flexible enough to accommodate any changed circumstances or implications arising from the implementation of the Waste Management Strategy and the procurement of any long term contracts.

Policies W1 – W6 of the Waste DPD each allocate a site for strategic or local waste management use. Policies W1 and W2 allocate land at Coypool and Ernesettle Lane respectively for strategic facilities for the management of Plymouth's municipal waste and/or commercial and industrial waste from within Plymouth and potentially from adjoining areas. Whilst those sites are allocated, the plan recognises (at paragraphs 7.1-7.4) that there is a need for the development plan to provide for flexibility, as well as giving some certainty through allocations, in particular to allow the market to deliver and to accommodate changing circumstances. The Waste DPD allows for planning permission to be granted for strategic waste management development on unallocated sites subject to certain criteria being met.

These criteria are set out in Policy W7: Unallocated Sites. Policy W8: Considerations for Waste Development Proposals, also sets out criteria that waste management development will be required to meet whether on allocated or unallocated sites. Policies W7 and W8 therefore provide the planning framework against which proposals for waste management development not on allocated sites should be assessed.

Policy W7 does not require the consideration of the availability or suitability of alternative sites, including those allocated in Waste DPD Policies W1 and W2. The possibility of meeting the need in a less harmful way or in a less damaging location is a material consideration to weigh in the balance against the grant of planning permission where a development is of a nature and/or scale which inevitably has impacts and which the wider public interest is argued to outweigh. The potential alternative sites and the site allocations in policies (W1 and W2) are examined in the alternative sites analysis (see Appendix 3).

The Waste DPD policies allow for proposals such as MVV's to be promoted on unallocated land and therefore, the fact that the site is unallocated involves no policy conflict.

Policy W7 states that such developments should be *“compatible with their environmental setting and... not result in unacceptable impacts on important environmental, historic or cultural assets.”* and that *“they will not result in unacceptable direct or indirect impacts on the residential amenity of existing or proposed communities, or unacceptable impacts on the amenity of other neighbouring uses that would be sensitive to waste management development.”*

Policy W8 states that development proposals for waste management facilities will be permitted where proposals *“do not have unacceptable impacts on environmental, social or economic assets”* and requires that *“the proposal provides for a good standard of design, particularly in relation to: site layout: quality of building appearance and materials; screening and boundary treatment; and hard and soft landscaping”*. This policy also requires that *“all buildings should incorporate measures consistent with the principles of sustainable design and construction equivalent to the current BREEAM excellent standard.”*

For full analysis of Policy W7 and Policy W8 as it relates to the application see appendix 6.

9.3.5 Supplementary Planning Documents (SPD)

Sustainable Design in Plymouth (Adopted 2009). This document discusses amongst other things the aspirations that the city has in respect of any tall building proposal put forward within the city. It sets out principles of good design in relation to tall buildings and explains how such buildings can benefit of the city at key gateway locations.

The application site is not expressly included within the zone of opportunity for tall buildings as indicated in that document. It is considered that the guidance still remains relevant, given the obvious scale of the EfW proposal, and the prominence it would have in the city.

Statement of Community Involvement (Originally adopted 2006, review adopted 2009). This document sets out the requirements on developers to engage with local people and other stakeholders in bringing forward planning applications (see section 10.12).

9.4 Emerging Policy Guidance considered as being a material considerations

The applicants state that the proposed development is not only consistent with the policies in the existing Development Plan for Plymouth but meets the Draft National Planning Policy Framework and the guidance which Planning Authorities should follow in determining planning applications (see 9.2.5 above)

The applicants have also reviewed the proposed EfW CHP facility against the recently published Review of Waste Strategy for England.

9.5. Non Land Use Policy Documents

Waste Strategy for England 2007

The Government's key objectives are to:

- decouple waste growth (in all sectors) from economic growth and put more emphasis on waste prevention and re-use;
- meet and exceed the Landfill Directive diversion targets for biodegradable municipal waste in 2010, 2013 and 2020;
- increase diversion from landfill of non-municipal waste and secure better integration of treatment for municipal and non-municipal waste;
- secure the investment in infrastructure needed to divert waste from landfill and for the management of hazardous waste; and
- get the most environmental benefit from that investment, through increased recycling of resources and recovery of energy from residual waste using a mix of technologies.

The strategy aims to address key challenges for the future and one of the main elements of the strategy is to *"encourage much greater consideration of waste as a resource through increased emphasis on re-use, recycling and recovery of energy from waste"*

9.5.1 Whether general compliance with the Government Review of Waste Policy 2011 (DEFRA) (June 2011)

The coalition Government has undertaken a Review of Waste Policy for England which was published in June 2011. The Review of Waste Policy for England sets out the objective of reducing the volume of waste sent to landfill and increasing recycling. It states that *"we can and must go further and faster. If we do, we will see the benefits not only in a healthier natural environment and reduced impacts on climate change, but also in the competitiveness of our businesses through better resource efficiency and innovation, helping to create a new, green economy."* By driving waste up the hierarchy the objective is to *"ensure that the UK meets its EU obligations and targets on waste management"*

The Review also states that *"Waste services are a matter for local authorities to develop fit for purpose local solutions. However the Government believes that better procurement and joint working can improve the efficiency of collections while improving the frontline service for the public in an affordable and practical manner"*

It is clear from this proposal that the authorities which comprise SWDWP have worked together to procure the development of the proposed facility through a competitive procurement process to deliver a "fit for purpose solution" which delivers best value for money; which meets the objective of diverting waste from landfill; and which will not compromise the target to meet the EU obligation to recycle at least 50% of waste from households.

Paragraph 22 states: *“Government supports efficient energy recovery from residual waste which can deliver environmental benefits, reduce carbon impacts and provide economic opportunities. Our aim is to get the most energy out of genuinely residual waste, not to get the most waste into energy”* and waste can be used to produce renewable energy reducing demand for energy from fossil fuels.

Paragraph 237 states: *“Experience to date with CHP infrastructure has highlighted a potential difficulty in securing long term customers for heat ahead of construction of the plant. Without heat off take, the lower efficiencies achievable from electricity only generation could waste valuable opportunities to help decarbonise the heat sector. This is a particular opportunity for business, particularly larger firms, through the greater exploitation of CHP for commercial and industrial premises.”*

From day 1 of its commercial operation the proposed facility would provide both steam and electricity for use in the Devonport Naval Base by both the MOD and Babcock and it would also provide electricity into the National Grid. The proposal would also help to facilitate possible district energy schemes beyond the naval base. Lengths of the existing pipe network in the Dockyard would be replaced and improved and the development would provide an alternative to the use of fossil fuel in the existing Dockyard boilers and the potential to reduce the need to burn fossil fuels to produce electricity and heat outside the Dockyard.

Devonport Dockyard is significantly the largest power user in south west Devon. The location of the proposal and thus the choice of site is a key element in delivering the “green credentials” of this facility and significant contribution to the carbon savings that would arise from the project. It is considered that this proposal has sought to *“get the most energy out of genuinely residual waste”* and meets the aims set out in the Government’s Review of Waste Policy.

10. Analysis

10.1 Justification of Need and Consideration of Alternatives

Diverting the sub regions residual waste from landfill

Plymouth City Council, Devon County Council and Torbay Council currently landfill their residual waste (waste that has not been reused or recycled) at sites near Liskeard in Cornwall and Newton Abbott in Devon.

Under an existing contract with Viridor Waste Management Ltd a landfill void at the Lean Quarry Landfill site in Cornwall outside the county boundary is used by Plymouth City Council and some of the Devon Districts which involves a 30 mile round trip from Plymouth. The remaining physical capacity at Lean Quarry is estimated to approximately 6 years at the current tipping rate and 10 years at the Heathfield landfill site near Newton Abbott that takes Torbay Council and Teignbridge DC residual municipal waste (licensed until 2016) The next nearest landfill site is in East or North Devon.

In considering spare capacity one must be mindful that a permanent long term solution is being sought and landfilling does not provide this. Some waste will

always have to be landfilled no matter what the technical solution. Cornwall will need to find landfill capacity for their waste. There are only two landfill sites in Cornwall. Furthermore it takes 3 years to construct an Energy from Waste Plant once suitable site has been found and it could be several years to find suitable alternative site/s for disposal of the scale of residual waste that is needed to be diverted from landfill. It is considered that there is an urgency that is compounded by limited contract life and the financial implications of delay.

Local authorities are required to divert biodegradable municipal waste from landfill under the EU Landfill Directive. Landfilling of waste has been proven to be highly damaging to the environment in terms of emission of greenhouse gases. Even with active gas extraction systems, landfills emit large quantities of methane into the atmosphere which has 23 times more global warming impact than carbon dioxide. In addition landfills produce a highly toxic liquid called leachate which can cause serious environmental damage if it enters watercourses. The national target is to reduce the amount going to landfill to 50% of the total amount (by weight) of such waste produced in 1995, by 2013 and to 35% by 2020. The Draft RSS has a target for landfilling only 20% of the region's waste by 2020. The Partnership estimate that, even with increased recycling, it will have around 170,000 tonnes of residual waste for disposal in 2014 rising to over 200,000 tonnes per annum by 2039 primarily as a result of projected population increases. It is anticipated that this particular proposal, together with the continuation of SWDWP strategies to meet recycling targets, would result in a 97% residual waste diversion from landfill and such would accord with the European Directive and assist in meeting national and regional targets. This includes ensuring that the bottom ash is re-processed as a secondary aggregate and can therefore (except for a small residual element) be diverted away from landfill. Moreover the proposed Section 106 agreement seeks to establish a mechanism whereby this material may be utilised in support for the city's wider growth agenda. The SWDWP point out that the unavailability of sufficient accessible landfill capacity in the long term, or of a suitable waste management facility to meet SWDWP needs identified in the SWPWP Final Business Case (January 2011), indicates a measure of urgency in finding an acceptable location for the development.

Landfill void space is reducing and delays in making provision for alternatives come at a substantial cost to the local economy. This leads the SWDWP to state:

“In light of the time imperatives identified above it is essential that MVV's facility is available to the Partnership Councils as soon as possible. This is particularly important in light of the consequential cost of a delay to the operational commencement date (estimated at £1.1m, £3.9m and £27.3m for a 3, 6 and 24 month delay respectively) and the fact that there are very few alternative waste disposal facilities available in the southwest region should this solution not proceed or be delayed.”

It is considered that SWDWP's concern about the rising costs of landfill and the urgency of the matter is understandable, as the Business Case has the

potential to make substantial savings for local residents to the benefit of the local economy and this benefit is a material planning consideration.

Encouragement is given in the RSS for Plymouth to be a potential location for a facility able to treat waste from the sub region as economies of scale could accrue.

The proposal is in respect of a waste disposal facility that would accept around 60,000 tonnes of waste from Devon. This would be in accordance with the strategic direction of the Devon Waste Local Plan as it would provide capacity in a decentralised manner to meet Devon's waste capacity needs (see letter of support section 7). An Exeter EfW facility is being developed to replace an incinerator that ceased operation in 1996 and would have a capacity of 60,000tpa (whereas the current proposal at North Yard is to treat 245,000 tonnes of waste per annum). The Exeter facility is intended to meet a different need. It is over 40 miles away from Plymouth and has a limited capacity and does not reduce the need for a Plymouth facility.

It is concluded that there is a substantial and compelling need for the facility and that it is needed now if the targets are to be achieved and they take some time in the formulation and planning processes before they even get to construction.

Choice of waste disposal facility

Chapter 5 of the National Waste Strategy 2007 gives national advice on planning for waste infrastructure, recovering energy from waste, and technology choice. Paragraph 27 is noteworthy. It states that *"the Government does not generally think it appropriate to express a preference for one technology over another, since local circumstances differ so much. Those making investment decisions should consider the 'summary guidance on energy from waste technology', and other similar information such as that which Waste Infrastructure Delivery Programme (WIDP) can supply – and make their own decisions. It is not helpful to rule out a particular technology – such as incineration – in advance, since this unnecessarily restricts options and threatens to raise costs."* Siting of plant to maximise opportunities for Combined Heat and Power is, however, recommended.

The Plymouth Municipal Waste Management Strategy (MWMS) for the period 2007-2030 sets out what infrastructure the Council needs to achieve strategic aims.

Alternative technologies were considered and this influenced the SWDWP Business case. Other technologies were explored by the Partnership Councils within their Municipal Waste Management Strategies but for many reasons such as cost, reliability, risk or land take, they were not recommended over energy from waste (EfW). The SWDWP states that *"In particular as newer technologies are not yet proven to be reliable, if problems arose this could leave the Councils' without a waste disposal solution"* The SWDWP states that it *"did not specify an EfW solution as part of the procurement but only that it must include a thermal element hence it is the specialist waste industry that concurred that EfW was the most appropriate technology for our solution.....The Final Business Case was also approved by DEFRA"*

demonstrating conformance with national policy on managing waste and as representing value for money.”

Furthermore, this solution has secured £95 million of PFI credits from to the Partnership, which equates to £177million over the life of the contract. This provides a degree of certainty to the delivery of the proposal and confidence that the increasingly urgent need will be met and this is a material planning consideration.

It is considered that a technology solution that has the ability to supply heat on the scale proposed and with an immediate user from day one is a significant benefit and would accord with planning policies. It is considered that the additional benefits that could be secured from a facility that could deliver combined heat and power are particularly important to the recommendation being made in this report.

Some concerns have been received suggesting that the EfW plant would have a detrimental influence on Plymouth’s future recycling strategy. The Director for Community Services with responsibility for waste collection and disposal services has given an assurance that the Council, working with partners in Devon and Torbay as the South West Devon Waste Partnership, has an approved strategy to achieve significant recycling improvements over the future. In Plymouth’s case this shows recycling rates improving to over 44% by 2019/20 (up from the 2010/11 target of 33% which was achieved) (see section 7).

This commitment to recycling in conjunction with an energy from waste plant would be in accord with the National Waste Strategy.

This particular proposal would generate energy from residual waste. In line with PPS10 the proposal would result in movement up the waste hierarchy as well as diverting waste from landfill, and this is a factor in favour of the development. This relates not only to the main residual municipal waste stream but also to a subsidiary commercial and industrial (C&I) waste stream. The capacity of the proposed plant would accommodate the planned growth in both residential and commercial development in Plymouth and the partner authorities’ areas over the 25 year life of the SWDWP contract. The capacity in the plant not taken up with residual municipal waste would be available to commercial and industrial waste of a similar nature from the surrounding area (including parts of SE Cornwall). This would enable the facility to maximise efficiency and accords with PPS10.

The EIA regulations 1999 require alternative technologies and locations to be assessed and the main reason for the choice to be explained taking into account the environmental effects. Following consideration of local views and those of consultees the Regulation 19 notice issued by the Local Planning Authority required further information on this matter. This section of the Environmental Statement was re-written by the applicants to give greater clarification.

An EfW plant is required to treat the scale of residual waste that will be produced over the next 30-40 years in the sub region whilst other facilities could be developed to complement the treatment of the waste stream.

It would support the need for, and ability to deliver, additional smaller scale recovery facilities elsewhere in the SWDWP area, in accordance with the strategic direction of the Devon Waste Local Plan, as shown by the current permission for the smaller Energy from Waste facility in Exeter (mentioned above) and that for the Anaerobic Digestion plants at Holsworthy and Langage (both of which are operational).

Planning permission has also recently been granted for an Advanced Anaerobic Digestion Facility at a redundant china clay refinery at Lee Moor to treat mixed waste and, if built, divert up to 75,000 tonnes a year from landfill producing 3MWe /yr output of electricity and “compost-like material”(An autoclave would pre-treat the waste before removing recyclable materials).

Several letters received objecting to the current application have suggested that such alternative technology is preferable. The applicants have pointed out that such facilities would be complementary to and not alternatives to the proposed EfW plant. They point out that the EfW plant would be capable of producing 22.5 MWe from 245,000 tpa, and that the best comparison in respect of efficiency is to look at MWh/tonne. An Advanced Anaerobic Digestion facility of that size would achieve 0.35 MWh/tonne whereas the EfW facility would achieve 0.72 MWh/tonne, i.e. well over 3 times better in terms of the energy recovered from the waste.

The SWDWP partnership have anticipated the recycling in the City and the surrounding area increasing in making their estimates of the residual waste which would be available for the EfW plant. The diversion of some organic waste from going to the EfW plant (such as paper and food waste) to such facilities would support maximum recycling and take some waste that is often quite wet and has low calorific value (such as from businesses engaged in ice cream or yoghurt production). The quantity of such residual waste diverted from going direct to the EfW plant would be quite small.

It is considered that there is a pressing need to divert some 170,000 tonnes /annum of residual waste from landfill by 2014 even with increased recycling. It is considered that the evidence demonstrates convincingly that there is no alternative technology that would be capable of meeting the need within the necessary timescale that would have less visual impact or less impact generally or be capable of delivering the same benefits as the proposed EfW plant. .

The plant would be co-located adjacent to a very significant energy user at the Dockyard and energy would be utilised from the outset. There are contracts in place to deliver this.

It is considered that a technology solution that has the ability to supply heat on the scale proposed and with an immediate user from day one is a significant benefit and would accord with planning policies

SWDWP has written in support of the applicant's assessment that this is an **appropriate scale and type of waste management facility to meet the needs of the SWDWP area for the next 30-40 years.** The proposals

submitted by MVV Environment Devonport Ltd meets the 3 authorities Joint Municipal Waste Management Statement's objectives.

There would be important environmental benefits in diverting 97% of the sub regional residual waste predicted in accordance with European Directives national and regional guidance.

In addition an important consideration for the Local Planning Authority is that the MoD advises that in the process of diverting residual waste from landfill, an important sub regional employment base, namely HMNB Devonport, would save at least 20% annual energy costs through purchase of the heat from the proposed facility. This has the benefit of assisting in the safeguarding this important marine employment site in support of Core Strategy Strategic Objective 6 and Policies CS04 and CS05.

It is considered that the additional benefits that could be secured from a facility that could deliver combined heat and power are particularly important to the recommendation being made in this report.

The environmental benefits which result from the ability to put the existing HMNB boilers on standby, thereby reducing local emissions from burning gas or fuel oil, is also a material planning consideration (in accordance with Core Strategy Strategic Objectives 3 and 11 and Policies CS01(3) and CS20(6)).

Alternative sites

The local planning authority's assessment of the applicants' consideration of alternative sites' and the applicants' justification for the choice of site is attached as appendix 3

The local planning authority has an up-to-date Waste Development Plan 2006-2021 that acknowledges that no new landfill sites can be found within the City and identifies where the types of waste management facilities identified in the MWMS should be provided.

Although the WDPD is not specific about the waste technologies that should be developed at the strategic sites a summary is given of the common types of facility and the mix of facilities that could dictate land requirements.

Although the site within HMNB Devonport at North Yard is not one of the identified strategic sites in the WDPD (April 2008) it is acknowledged in the planning document that other sites might come forward during the plan period hence the provision of Policies W7 and W8. The proposal is therefore required to be assessed under Policies W7 and W8 (see section 9.3.4 as well as comments within this section of the report).

SWDWP indicate that this proposal is particularly environmentally beneficial and cost effective largely due to it being within the Naval Base and able to generate income from the sale of heat and electricity to the Base to the benefit of the local economy.

The alternative sites assessment clearly demonstrates that the site offers the greatest opportunity to deliver an EFW with CHP that:

- maximises the plants efficiency,
- maximises the plants heat potential thus minimising waste heat,
- maximises the benefits to the environment through significant carbon savings,
- delivers value for money for the residents of SWDWP area,
- maximises the potential to retain existing employment opportunities in the Dockyard by making it more competitive,
- creates new employment opportunities, apprenticeships and skills for people locally
- delivers benefits to the local community through improved local facilities

The alternative sites assessment concludes that this is the most appropriate site for this scale and type of Energy from Waste plant providing that the Carbon/renewable energy benefits are provided and adequate mitigation is achieved as envisaged to adequately address impacts on the environment and sensitive receptors.

In summary, officers have concluded that there is a compelling need for the proposed facility, there is no more appropriate technology available to meet that need and nor is there any less harmful, more appropriate alternative site on which the need can be met.

10.2 The Carbon/renewable energy benefits

Further information was submitted by the applicants to demonstrate the compatibility of the proposed EfW CHP facility with climate change and carbon management targets and policies of Plymouth City Council and its Local Strategic Partnership members. It provided evidence of the fit between the proposed development and city-wide corporate policy regarding sustainable development.

The principal energy benefits are identified as:

- The facility would operate at a 49% net efficiency at maximum CHP output and achieve high efficiency levels of energy generation at all times.
- Electricity and steam would be provided to the Dockyard under the Energy Supply Agreement.
- The facility would produce significant usable energy 50% of which is classed as 'green'
- The facility would meet the Naval Base's electricity needs as well as supplying any surplus to the Grid
- The facility would provide the Naval Base's heating needs with existing heating boilers put on standby and to be used as back up.
- There is a commitment to improved carbon savings and for facilitating the provision of District Heating

- The facility would save over 70,000 tonnes of carbon dioxide equivalent per year (equal to that produced from 28,000 cars) The Naval Base would reduce its emissions and carbon footprint by using EfW green energy.
- The EfW facility is designed to meet the "Good Quality CHP" definition therefore would be amongst the most efficient in the UK, as few EfW plants currently meet this standard.

Efficiency

The proposed EfW plant would generate renewable energy and heat as a result of recovery of energy from waste. The current proposal is for the provision of electricity and steam to the Dockyard under an Energy Supply Agreement. The facility has the potential to generate up to 40MWth of heat, but as currently configured the scheme would generate **23MWth** of that capacity in the form of steam to supply the Dockyard. The rest of the heat capacity would be used to generate electricity.

In the short term this reflects the most commercially attractive position for MVV because of the current availability of other local heat customers, and because of government subsidy for production of renewable electricity (ROCs). Heat demand may reduce in the Dockyard with greater efficiencies, and some spare capacity has already been identified by MVV (approx 3.75 MWh). Demand from the Dockyard is also seasonal and the existing boilers 'supply steam all year round although in the summer months the steam system is often switched off and drained down because there is no need for heating'. This affects the overall efficiency of the plant and under the current design the EfW CHP facility would have **a net overall efficiency of 39% on average, rising to 49% in the winter months** when steam demand is highest. This compares to a normal "electricity only net efficiency" of about 27.4% which might occur in the summer months when there is no steam demand from North Yard. Other electricity only EfW facilities in the UK only achieve an efficiency of 23% typically.'

The proposed plant as currently designed and configured conforms to **the Good Quality CHP standard** and is therefore amongst the most efficient in the UK, although in many schemes in Europe this is commonplace with many EfW plants connected to extensive District Energy or low carbon networks.

Wider District Energy infrastructure connections from the plant would allow a more constant heat load over a longer season and increase the total potential carbon savings by maximising the efficient operation of the plant. There is currently no agreement in place to deliver this as this is normally delivered by a separate entity (an Energy Services Company) which will be the subject of a separate procurement process.

There are commitments from both **the applicants** and **the Council** to facilitate wider low carbon infrastructure to ensure that the efficiency of the plant can be maximised in accord with SO11, CS 20, PPS1 and its supplements and Draft NPPF.

The applicants have given a commitment to achieve further carbon savings and to maximise the efficient operation of the plant by extending the existing dockyard steam network. (their Section 106 proposed Heads of Terms)

The applicant's documentation as part of its Regulation 19 response demonstrates the potential for the EfW plant to supply heat to a wide area, including not just the adjacent residential / mixed use communities of Barne Barton, Weston Mill and Keyham but also to Devonport & the City Centre.

Connection to a wider District Energy network would require a new hot water main rather than steam network. The applicants state that *"the EfW CHP facility has not been designed at this stage to deliver pressurised hot water, although this can be done in the future with changes to the steam turbine and the water-steam cycle system. Depending on the additional demand such modifications may be quite minor in nature."* Whilst some modifications of the current turbines would be required, this is feasible and could be achieved in the future. This wider infrastructure would need to be delivered by another entity (Energy Services Company or ESCo), which would be the subject of a separate procurement exercise normally through a Competitive Dialogue OJEU process.

The City Council have carried out a Feasibility Study for an Energy Services Company (ESCo) in Plymouth published in 2010. It includes illustrative schemes at Devonport, City Centre and Derriford, and has also been used as evidence for the policies for District Energy in the adopted City Centre Area Action Plan and Pre-submission Derriford & Seaton AAP. Discussions with other public sector organizations are ongoing to develop these proposals. A soft market testing exercise was carried out earlier this year with other public sector partners and has demonstrated strong commercial interest from the marketplace. It is feasible that the formal OJEU procurement process could be started in 2012, if the funding was available. It has been calculated that the procurement process costs would be £500K

There are two contracts already in place for delivery of CHP within the dockyard and this, together with the applicants and the Council's willingness to facilitate maximising the delivery of CHP, renewable energy generation and associated carbon savings, are considered to be important in ensuring compliance with Planning and Climate Change: (Supplement to PPS1).

To ensure that there is a realistic prospect of the delivery of these envisaged CHP benefits materialising, a financial contribution towards this wider provision is required (£2 million). The combined provision of £0.5M for the procurement process and the £2M infrastructure costs are necessary to enable the Local Planning Authority to facilitate the phased delivery of low carbon infrastructure and an enhanced energy network from the proposed EfW plant,

The most significant potential long term benefits are likely to arise from the supply of low carbon energy southwards from the EfW facility to Devonport (including the industrial uses of South Yard) and then subsequently

connecting to a network that links to the City Centre. However this will be a matter for the investigation of option in due course.

It is also essential to ensure compliance with policy that the opportunity is taken to secure the applicant's commitment to deliver the dockyard linkages already identified -- including to the Help for Heroes swimming pool. This needs to be secured by the clauses suggested in Schedule 1 to maximise energy potential. (see Appendix 1)

The carbon savings

The potential carbon savings arising from the facility are very significant, both in terms of diverting the waste stream away from landfill, but also the use of energy generated in the form of heat or electricity, which displaces carbon from other sources.

The WRATE model has been used by MVV for its proposed EfW CHP facility to assess the CO₂ emissions from the plant and state that the modelling delivers a reduction of 73,504 tCO₂eq per annum. Eunomia Research & Consulting undertook research for WRAP ("Landfill Bans: Feasibility Research, Appendices") which was published in March 2010 that concluded that energy generation from residual waste for a plant **operating in CHP mode** results in avoided greenhouse gas emissions of 0.354tCO₂eq/t waste, which is broadly consistent with this figure. Of these emissions 34,928 tCO₂eq per year equate to Plymouth's waste.

The most recent data published (2008) calculated that **Plymouth's CO₂ emissions** were 1,414,000 tCO₂ per annum. Although not directly comparable because of the different methodologies and units used, the approximate reduction for Plymouth of 34,928 tCO₂eq per year will amount to **a reduction of 2.47%** from the most recently published CO₂ emissions for Plymouth.

This would be a significant contribution towards the current reduction targets set out in corporate policy, in particular the 20% greenhouse gas (GHG) emissions reduction target for 2013 and 60% GHG emissions target for 2020. (Plymouth's Climate Change Action Plan: The First Steps 2009-2011 and Plymouth's Climate Change Framework 2008/2020). This corporate policy is reflected in the Adopted Planning Obligations & Affordable Housing SPD, August 2010.

The SWRDP considered that the overall efficiency of the plant would be well above usual EfW values such that the scheme would lead to very significant carbon-saving.

It is considered that a Section 106 clause is warranted to ensure that the EFW plant complies with the Good Quality CHP definition and links (see Section 106 schedule1)

In overall terms, the design and location of the EfW plant, together with contributions towards the delivery of a wider supporting low carbon infrastructure in the longer term, would help to ensure that the efficiency of the

plant could be **maximised**, in terms of renewable energy generation and associated carbon savings.

It would be consistent with national and local planning policies in this respect particularly the adopted Plymouth Waste Development Plan Document policies W7 1, 2 and 6 W8 9 and 10. It is considered to be consistent/compliant with the Draft National Planning Policy Framework (NPPF), the National Policy Statement for Energy (EN-1) and the National Policy Statement for Renewable Energy Infrastructure (EN-3), Planning Policy Statement 1: Delivering Sustainable Development (PPS1), Planning Policy Statement 1 Supplement: Planning and Climate Change (PPS1 Supplement), Planning Policy Statement 22 Renewable Energy (PPS22), the adopted Plymouth Core Strategy (including Policies CS20 and CS33),

10.3 Flood Risk

In accordance with the advice contained within PPS25, the application of a Sequential Test was required in this instance because a small section of access road (less than 5% of the total area) falls within an area at risk of flooding (Flood Zone 2). The single aim of the Test was to try to identify a site with less vulnerability to flood risk. This test has been carried out by the Local Planning Authority in accordance with the process outlined within the EA standing advice – (see section 9 above and Appendix 4 and the EA agree that the Local Planning Authority has considered a full range of alternative sites). It is considered that there is no other location for the proposal which would be at lower flood risk. As such the proposal would accord with CS21.

The mitigation proposed as part of the development will raise levels along this section of access road to ensure that the site is located in flood zone 1 post development and ensures that flood risk elsewhere is not increased. This would accord with policies CS21, W7 3 and W8 1.

The views of the Environment Agency are endorsed and essential conditions are suggested to ensure flood and environmental risks are appropriately managed.

10.4 Transportation and Access issues

There are many letters of representation that reflect concerns that significant harm will result from the predicted increase in vehicle numbers but the responses received from the Highways Agency and Transportation Unit indicate that there is no evidence that this would be the case based on the projected traffic numbers (see section 7). However conditions and obligations are warranted to secure highway improvements in the interests of safety and to secure adequate sustainable travel measures during construction and operation of the EfW plant to ensure compliance with CS28, CS33, W7 5 and W8 6.

The assessment made by the Transportation Unit is endorsed (section 7)

Waste delivery by alternative modes has been assessed and it is concluded that this would provide little flexibility when compared to transporting waste by road. It is considered that the on-site storage of bottom ash prior to shipment by water (at 'Table Top Mountain') would be likely to be injurious to the amenities of residents at Talbot Gardens and the applicants were advised of this at pre-application stage. The shipment of bottom ash from another wharf away from the site is a matter that could be investigated by the applicant when the planning implications of such could also be assessed. The traffic impacts of the development, allowing for the transport of the residual bottom ash are acceptable and there is no evidence that transport of such residues by road would pose any material risk to public safety.

The disbenefits that could occur from impacts associated with uncontrolled deliveries of Commercial and Industrial waste would be addressed by conditions and the section 106 agreement. The times of deliveries and number of trip movements would be controlled and waste trip movements associated with the Base would no longer need to use the public highway.

The results of traffic modelling indicate that the development has little impact on the operation of the 3 junctions that have been assessed but as the Weston Mill Drive/Carlton Terrace /Ferndale Drive junction is approaching capacity upgrading contributions are warranted. This would accord with CS Objective 14, and Policies CS 28 and CS33 to provide facilities to support proactive measures to support infrastructure provision and sustainable transport modes and W7 & W8 in support of adequate transport infrastructure.

A comprehensive Travel Plan (TP) would be warranted and would need to be implemented to mitigate for impacts on the local highways. When considering the use of modes of transport other than the private car for journeys being made to and from places of employment, the most viable alternative is often considered to be public transport. This is supported by recommendations included within the applicants Transport Assessment which relates to staff incentives to encourage the use of public transport, those incentives, being discount vouchers for bus travel. A dedicated TP account would be used to fund measures/initiatives that support the delivery of the agreed TP (including subsidised travel passes for a period of one year). This obligation would accord with CS Objective 14, and Policies CS 28 and CS33, W7 & W8 in support of adequate transport infrastructure.

A comprehensive Construction Workers Travel Plan (CWTP) would also be warranted and would need to be implemented to mitigate for the impact of traffic movements associated with the construction phase of the development which would have the potential to be significant with an average of 160 construction workers on-site during the 3 year build programme with a maximum number of 309 during October 2013. The applicants would be required to set up a dedicated CWTP account which would be used to fund measures/initiatives that support the delivery of the agreed CWTP. Initiatives that have been discussed involve setting up a temporary off-site park and ride facility and the provision of shuttle bus services which would include pick-up points from various residential areas throughout the City. This obligation

would also accord with CS Objective 14, and Policies CS 28 and CS33, W7 & W8 in support of adequate transport infrastructure.

The Highway's Agency has directed that certain requirements are met in the interests of highway safety on the strategic road network. (see section7). Their requirements have been taken into consideration and would be incorporated into any decision notice issued on completion of the Section 106.

The Agency's main concerns are in respect of the impact of additional HGV movements through the A38 (T) Weston Mill Drive junction's East and Westbound off-slip roads where there have been accidents. A design solution has been found to address the problem and the improvements would need to be completed within 6 months of the commencement of the on-site construction works unless otherwise agreed in writing by both the Local Planning Authority and Highways Agency.

It is considered that the disbenefits arising from transport matters can be adequately addressed by conditions and obligations that would secure highway improvements in the interests of safety and adequate sustainable travel measures during construction and operation of the plant.

10.5 Economic and Employment issues

The City plays a dominant economic role in its sub region with a potential to become the economic hub of the far South West. Strategic Objective 1 of the Core Strategy sets out how Plymouth's strategic role is to be delivered and Strategic Objective 6 seeks to make Plymouth a place of choice for investment and business growth, delivering high quality, well paid and sustainable jobs to achieve a step change in economic performance that will bring long term prosperity to the city and its sub-region.

Plymouth's former dependence on defence has left a number of legacies and in rationalising defence land holdings it has been important to take account of wider issues and potential benefits for the city as a whole, including the need to develop the city's skill base and promote economic inclusion. As energy costs represent a significant part of their operating budgets, both the MoD (Royal Navy) and Babcock International Group, both major employers, have written in support of the application as the EfW plant on this site would reduce the cost of running the Naval Base and dockyard (see Sections 7 and 8). It is considered that the Naval Base and Dockyard is a major sub-regional industrial centre and employer and the proposal would provide a significant economic benefit by providing 20% reductions in annual energy costs.

A vital element of Devonport's regeneration is the provision of local employment opportunities to help to reduce the high local unemployment rate and to provide local jobs for the occupiers of new housing. As well as the provision of new jobs it is as vital to retain existing job opportunities, particularly within Devonport's traditional and marine industries. Investment which, safeguards and increases employment in the Devonport Naval Base and Dockyard will be supported in accordance with the Devonport AAP.

Easing the costs burden on a significant local employer is a potential benefit for the local neighbourhood as well as for the city as a whole and is important

when considering the use of operational defence land (Policy CS04) and of safeguarding land within a marine employment complex (CS05).

The site is within the Naval Base. Proposals that would support the future expansion or redevelopment of military establishments for operational purposes would accord with Policy CS04. The extent to which the proposal complies with this policy warrants consideration. If granted the development would result in the temporary loss of some operational land that is currently used for occasional outside storage purposes ("Table Top Mountain"). However the security boundary would be re-positioned to retain 'this part of the site within the operational area of the Base. The pipe work and electricity connections through the Base would deliver the CHP benefits and secure employment benefits as described above. The application also includes a proposal to construct a new Bull Point access road within the site. This would facilitate access to operational land to the west, to the Naval Base Helicopter Landing site and to developments associated with the Devonport landing craft co-location project (see Section 6). However it is required because an existing road would be truncated by the development. Nevertheless as the existing access road is in poor condition it is considered that the proposed new access road would be a benefit to operational activity within the Base in accord with CS04.

The site is also part of a marine employment complex although it does not have a direct waterfront location. Planning policy CS03 gives priority to safeguarding such sites for marine industrial uses. The extent to which the proposal departs from this policy warrants consideration. The Naval Base complex contains a range of uses that are ancillary to the main marine industrial use. Should the application be refused, this site could be a suitable site for ancillary Base workshops or warehousing (as with the development of the Naval Bases distribution depot to the south east). The proposal would result in the permanent loss of land with potential for marine employment contrary to CS03. This consideration must be weighed against the economic and employment benefits of the proposal.

The proposal could result in the provision of up to 300 jobs during the construction stage and 33 full time jobs when the EfW plant becomes operational. The applicant has also indicated that there could be around 70 secondary jobs associated with subcontractor operations.

The proposed development would also deliver local training and workforce benefits. The applicant has agreed to a local employment and training programme to provide training opportunities, apprenticeships, internships and work experience placements. The planning application contains letters of support for these provisions from the MoD and Babcock. Support in principle also comes from the University of Plymouth, City College Plymouth, and the Career Transition Partnership. A draft job advert has also been included referring to traineeships for Graduates in Process, Mechanical and Electrical engineering. It is considered that adequate provision should be made for apprenticeships, internships and work experience placements to facilitate local employment and training initiatives pursuant to Core Strategy Policies CS 04, CS05 and CS33.

It is considered that the CHP benefits for the dockyard and the economic benefits and workforce training benefits described above outweigh the loss of the marine employment land for development of the EfW facility.

Securing the provision of local labour agreements and training initiatives would be consistent with paragraph 4.20 – 4.26 of the Planning Obligations and Affordable Housing Supplementary Planning Document.

The applicant recently held a “Meet the Buyer” event to try to gauge local business interest in the proposal and to demonstrate their intentions to try obtain locally sourced goods and services. It is considered that provisions should be secured for a local employment scheme to detail arrangements and mechanisms for ensuring that contractors provide opportunities for the training of local apprentices, and for securing the use of local labour, contractors and goods and services during the construction and operation and that 70% of the workforce would be sourced locally from the Plymouth local authority administrative area and from a location falling within the “PL” post code area. The applicant agrees that all externally advertised posts contracts and services would first be advertised in the local media and placed on the dedicated community website. (Appendix 1, Schedule 1).

10.6 Design and Visual Impact issues

Changes to the Planning application - Design and Landscape and Visual Impact Assessment.

The original Landscape Masterplan which was appended to the Design and Access Statement was amended following consideration of the Regulation 19 letter from the Local Planning Authority. These involved amendments to the site access road and to site drainage details.

A revised landscape and visual impact assessment was also required and provided, this included alterations to the study of landscape character as well as the study of visual impact.

The changes to the studies included amendments to the 'sensitivity' and 'magnitude of impact' categorisation of certain Landscape Character Areas (LCAs) and Visual Receptors and has resulted in a greater number of Visual Receptors experiencing significant adverse effects. These amendments were incorporated into the overall 'Significance of Effect' within the studies; however the applicant stated that overall no change has been made to the conclusions of either study.

Additional photomontages were produced showing vapour plumes in varying climatic conditions. The photomontages were subsequently shown to be inaccurate (see section 5 above) and revised ones have been re-submitted (in November) together with additional section drawings across the main building and residential properties on Talbot Gardens.

The merits of the applicant's design and landscaping proposals

As a building which cannot be entirely absorbed into its setting, the design approach has been to design a building to be seen and to form a local landmark, a flagship feature even over time. It is considered that the applicants have demonstrated a willingness to try to obtain a pleasing design and have demonstrated in their submission how they have involved the local community and other bodies in exploring options of how this might be achieved (see section 4)

The SW Regional Design Panel (SWRDP) state that there was nothing alarming in the scale of the proposed building in its setting and considered that the public and residents of this part of Plymouth should be used to seeing large structures in this locality. There have been several local letters expressing concern about the proposed design. The SWRDP suggestion of more basic simplicity with the design of the main building has not been accepted by the applicants. Having considered this difference of opinion, it is considered that the originality of the external rib columns and the use of angular building sections and curves are key elements to achieving the high quality landmark solution for this building. These elements of design are considered to add uniqueness to the design and avoid what otherwise might be a very austere industrial building.

English Heritage has considered the likely impact upon some large dockyard heritage features within the dockyard and has no objections. Having regard to the setting of the relevant listed buildings, location of the proposed buildings and intervening built form, it is concluded that the proposed development would preserve their setting.

Overall, it is considered that there is merit in the design that has been submitted for determination. Following completion it is considered that the building would be a new landmark feature for the Dockyard and form a positive, impressive visually acceptable structure for the local community and for those passing the site in compliance with the design objectives of the Council.

It is considered the architectural design has incorporated the required key design principles to support the Council's vision for high quality design in the city. The architecture of the built form should be of a very high quality for the benefit of local residents and visitors. The new development would respect the character, identity and context of historic townscape features and in particular Plymouth's unique waterfront, its local settlement pattern and nearby Tamar AONB in line with the expectations of LDF Policy CS02.

Landscape design

At the local level, the proposal would result in the provision of public and private spaces that are safe, attractive, and accessible; and complement the built form.

Plymouth City Council's Green Space Strategy lists the residential area of Barne Barton as a priority neighbourhood for green space investment and recognises Blackies Wood as non-accessible green space. In accordance with this Strategy, and in conjunction with the proposed improvements to the public open space area of Barne Barton north-west of Blackies Wood, the proposal should enable coordinated and beneficial long term management and maintenance of Blackies Wood for the benefit of local communities and educational groups, and for the protection and enhancement of biodiversity.

It is considered that the proposals will substantially enhance Blackies Wood and the adjacent public open space along Savage Road, improving both the quality of the open space and the quantity of accessible space in a manner most beneficial to the local community. This would accord with CS30.

It is considered that landscape planting on site would have only minimal effect at ground level for many years but off-site planting together with sound woodland management would have the potential to enhance the setting of the landmark building making it a "good neighbour" development integrating it into both the dockyard community and residential community. To achieve this, the requirements of the suggested Section 106 are essential (Appendix 1, Schedule 3).

It is considered that these landscape proposals both on-site and off-site together with their effective maintenance and management together with the enhancement of existing landscape features (in accordance with the suggested Section 106) are appropriate and necessary to provide a comprehensive package of measures to complement the architectural solution.

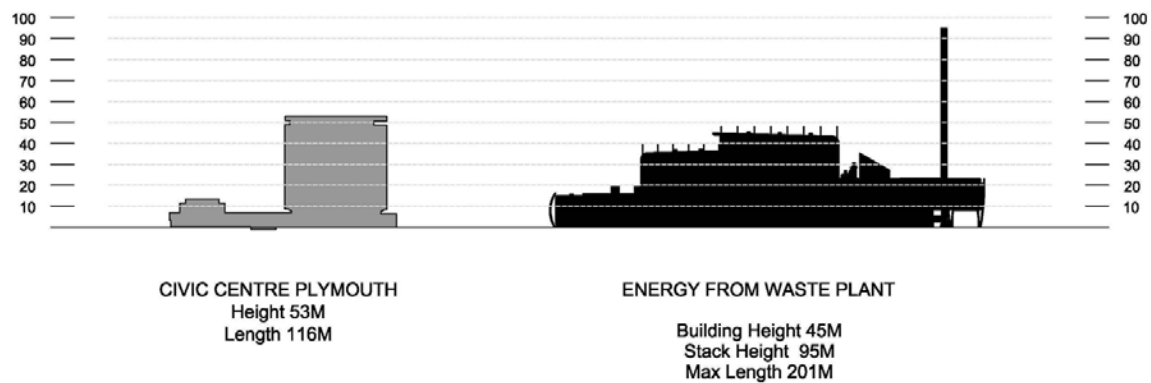
The main building's size & scale

The building proposed to house the energy plant would be some 201 metres long by 45 metres high by 81 metres wide at its greatest extents with a chimney stack 95m high. These heights are dimensions above finished site level which would be 9m AOD.

It is without doubt that this building would provide a strong visual presence relative to the natural and built forms that surround it, and therefore its visual impact upon those who live close to it and for the wider city are key issues for the determination of this planning application.

From many views the new facility would be seen within an urban dockyard setting, but given its scale within this context it is evident that the design and architectural quality of the main building and landscaping are important considerations to the determination of this application.

In comparison to the proposed main building, the Civic Centre stands 53 metres tall, 8 metres taller than the proposed EfW building's largest accommodation element (it's boiler hall) at 45 metres. The highest element of the proposal is its slender chimney stack at 95 metres above site levels. The proposed EfW building would also have approximately twice the mass of the Civic Centre as seen from the silhouettes of both buildings in Figure 1.



(Figure 1: Comparison of Civic Centre to North Yard EFW Plant)

Landscape and Visual Impact Assessment

The scale of the plant and the wooded, valley-like nature of the site led the SWRD Panel to see landscape as the starting point for their review and this approach is endorsed. The landscape and Visual Impact Assessment (LVIA) has been revisited since the application was originally submitted and is now considered to be a sound basis to assist determination of the application (A detailed assessment of it is available as a background paper) It looks at both the changes that the development will make to the existing physical landscape and the visual impact the development has on a series of 43 key views surrounding the site at 3 points in time: Site preparation and construction works; completion of the EfW CHP facility at year one of its operation and at Year 15 of its operation. Given the significant scale of the proposed main building, the visual impacts at year 1 and year 15 are very similar

Effect upon Landscape Character

The nearby wharves and dockyard have a strong influence on the character of the surrounding area through the introduction of massive scale components; these are complemented by the large sweeping landform and fields; and the expanse of the estuary adjacent to them. There are areas of high landscape quality within the area, such as the Rame Peninsula Area of Outstanding Natural Beauty (AONB), South Devon AONB and the Tamar Valley AONB.

The most significant effect to landscape character caused as a result of the construction works is that experienced from the Tidal Estuaries and Inland areas. Here a temporary, but Major significant effect would be experienced by the demolition of existing culverts and the building of a new bridge effecting both Barne Break and Weston Mill Lake. However it is considered that on completion of these features the inter-tidal banks would be reinstated to a beneficial natural appearance in accordance with a landscaping scheme and cleared of litter (see Appendix 1).

The completed EfW CHP building would be a significant structure within the Dockyard, delivering associated roads, footpaths, security fencing and lighting. The effect in the wider landscape would be significant, although by

year 15 it is envisaged that the proposed tree planting around the proposed building and to the north of the site would have matured to help to integrate it into the surrounding landscape. In relation to landscape character, officers are of the view that the impacts would be permanent and moderate as this building would reflect and complement the very large scale buildings, docks, and ships that exist there and the sensitivity of the landscape to change is (in landscape character terms) low.

Effect upon Visual Amenity

The effect that this development proposal would have upon visual amenity has been assessed by reference to a broad zone within which it is likely that the development proposal will be seen or Zone of Visual Influence (ZVI). The main building and its high chimney stack would be visible from a wide ranging area centred upon the River Tamar and extending to the east along Weston Mill Creek and its valley to North Prospect Road, to the south as far as Edgumbe and Millbrook, to the west nearly as far as St John beyond Torpoint and from the north at Wearde in Saltash. Several letters of concern have been received about distant views, including ones from Cornwall Council (see section 7).

It is considered that from longer distance views from Cornwall and over the River Tamar to the west the most noticeable features of the construction process would be the presence of the tower cranes however these elements would merge with the existing large dockyard cranes and buildings at these distances. The completed building would be seen in the context of the large scale dockyard buildings and structures coupled with the transient occurrences of large ships. The building would however be a key feature within that composition and for some sensitive locations it would be noticeable, these include views from landscapes at Cove Head Jetty, at Weade Quay, Saltash, from Coombe Park and from Wilcove.

An opportunity should be created to provide offsite tree planting at these locations to mitigate impacts and it is considered that a contribution towards an off-site contribution for tree planting within the locality is warranted (see Appendix 1) in compliance with CS33.

Also of importance is the visual relationship between the development and the nearby residential neighbourhood and the nearest homes. There are quite marked level differences between the application site and the nearby residential neighbourhood and there are intervening features such as railway embankments and vegetation. The applicants have produced a physical model (that will be available at the Committee meeting), an electronic 3D fly-through and amended photomontages which demonstrate the likely visual effects of the proposed completed building in its setting.

There are up to 450 homes in Barne Barton and Weston Mill within 250 metres of the proposal site, with the closest being 60 metres from the proposal as shown in Figure 2.



Proximity – 450 homes within 250 metres

Figure 2: Analysis of residential properties within 250 Metres of the North Yard EFW Plant

The likely effects of the initial construction works upon views will be limited to those receptors which are in close proximity to the development site and which have a reasonable outlook upon the construction site and its compound. Other local receptors within the city which do not have a direct view of the construction site will begin to register the higher elements of the construction once that level has been reached and the presence of tower cranes on site will highlight to most receptors that construction is well advanced.

Significant effects

The proposal is located close to several homes at Barne Barton particularly to some homes at Talbot Gardens and Savage Road with the closest being 60 metres from the proposed main building.

The applicants consider that during the construction stage the impact of the proposal upon visual amenity would result in significant effects from two viewpoints affecting residents of; Talbot Gardens Flats, Barne Barton and Cardinal Avenue, Weston Mill only. The Local Planning Authority however consider the impact to be greater and has identified two others these are; Savage Road, Barne Barton and Saltash Road (North), Keyham.

The applicants have concluded that there are 6 significant adverse visual impacts resulting from the completed development at either years 1 and 15, these are; Savage Road, Barne Barton; Cardinal Avenue, Carlton Terrace and Bridwell Road (central), Weston Mill; North Prospect Road (North), North Prospect; Saltash Road (North); Keyham. Having assessed the LVIA the Local Planning Authority consider that there are 4 more at the following locations; Talbot Gardens, Barne Barton; Hamoaze Avenue Weston Mill; Alexandra Park, Keyham; and St Budeaux Recreation Ground, St Budeaux.

1) Talbot Garden apartment blocks - significant effects

The concerns of several residents about the scale and length of time that they would have to put up with visual intrusion is understandable particularly for several nearby residents of the apartments at Talbot Gardens directly overlooking large parts of the site to be used for storing building materials. It is considered that visual impacts would be significant during the construction phase for these residents.

The proposed construction compound at the "Table Top mountain" area of the site would impact on the views of some residents of Talbot Garden's apartments for 2-3 years. The length of time for construction activities varies, but for major engineering projects such as for major urban roadbuilding, fly-overs and new bridge crossings (such as for the construction of the Tamar Bridge) a 2- 3 year period is not unusual, however the speed of construction is beyond the control of the Local Planning Authority. Construction activities are generally known to cause significant changes and disruption to established views that may have been enjoyed for many years, but this is a development site within the dockyard where changes to a view should be expected. The application site has been used for storage purposes by the MoD for many years and the present scale of storage activities on "Table Top Mountain" would intensify during the construction of the proposed EfW facility.

The view of "Table Top Mountain" when the construction compound is removed will be enhanced over the years as the proposed tree planting matures, but the storage activities in that MoD dockyard area are likely to remain and would continue to impact on the view from these properties.

Upon completion of the facility a significant deterioration in the existing view would be experienced by the residents of the most easterly flats, particularly the higher level ones with a panoramic south eastern outlook across the site and Naval Base. These flats have windows on their easterly elevations affording views of the proposed building and it is worth noting that the proposed development would not block their entire panoramic outlook, but would in some cases obstruct a significant proportion of it as seen from south east facing balconies and principal habitable rooms. Section drawings have been submitted by the applicants that demonstrate that some of the views from the Talbot Garden apartments of the proposed large EfW facility building would largely be oblique ones from windows and balconies but that the direct predominant view would remain of long distant views across the "Table Top Mountain" and the dockyard buildings with some views over Weston Mill Lake, the Tamar Estuary and Rame Peninsula to the south and west.

It is considered that the protection, retention and enhancement of the existing belt of boundary trees overlooked by some residents of Talbot Gardens would be essential in compliance with policy CS34. On completion of the main building effective landscaping of the rooftop terrace would be important to avoid oblique views across to Talbot Garden apartments from visitors to the proposed Visitor block.

There would however, irrespective of these measures be a significant adverse effect to a limited number of dwellings which would not in the view of officers be wholly mitigated by the high quality landmark quality design.

of the building and needs to be weighed against the compelling need for the facility

2) **Savage Road** - significant effects

It is considered by the Local Planning Authority that there will be a significant effect from the construction stage from this viewpoint which would involve partial loss of characteristic features and medium degree of exposure to the view given the advanced planting proposed, though this would take time to establish and have lesser effect in winter. This is justified by the proximity to the development site and in some of the Receptor locations views of the construction site itself.

It has been demonstrated in the submission that the operation of the EfW CHP facility at Year 1 would result in major significant adverse effects at the Savage Road viewpoint. They would experience a high degree of change to the existing view involving loss of characteristic features such as the panoramic view of the valley and dockyard and a high degree of exposure to the view of the proposal.

Residents of Savage Road would be afforded views of the mitigation planting and hedgebank in the foreground which would offset some of the changes to established views caused by the construction of such a large building standing above Blackies Wood. The lower levels of the north western elevation of the main building would be obscured by Blackies Wood from this direction and the proposed mitigating tree planting would have an important role here to break up the visual impact of the building, but to a lesser effect in winter when the trees are not in leaf. At year 1 the advanced mitigating tree planting and Devon hedgebank would have been implemented along the margin of Savage Road as part of the landscape masterplan for the development. Whilst this planting is proposed as advanced tree stock this would not be mature at year 1 and would take some time to develop, perhaps up to 15 years. Given the scale of the proposed building it would not create a total screen to the development, but would filter some of the views experienced of it when the trees and vegetation are in leaf. To achieve this, the requirements of effective landscaping and the suggested Section 106 are essential and it is considered that the long term retention and management of Blackies Wood is essential for the residents in this area in accordance with CS8, CS33 and CS34.

3) **Hamoaze Avenue, Weston Mill** - significant effects

Residents from the rear upper storeys of dwellings at the northern end of Hamoaze Avenue will experience the higher elements of the proposed building and its roof above the intervening railway embankment and fencing. This view will be seen in the context of the existing wide views which include the Dockyard, the River Tamar and distant Cornish landscape beyond. They would experience a high degree of change to the existing view involving loss of characteristic features such as views of the Dockyard, the River Tamar and the panoramic view of Cornish landscape beyond.

4) **Carlton Terrace, Weston Mill – significant effects**

From this viewpoint the proposed building is oriented at an oblique angle to the properties on Carlton Terrace. The majority of the building's south eastern elevation would be visible and would be seen as one element with the built forms of the Dockyard and the Cornish landscape in the background. Residents would experience a high degree of change to the existing view involving loss of characteristic features such as views of the Dockyard, of Barne Barton, the River Tamar and the panoramic view of Cornish landscape beyond.

5) **Bridwell Road, Weston Mill, (central) significant effects,**

Given the elevated nature and straight alignment of this street the proposed building would be seen as a large feature at the end of the street. Its presence would dominate the view and result in the partial loss of characteristic features such as views of the River Tamar and of the Dockyard itself.

6) **North Prospect Road, North Prospect (North) significant effects,**

The proposed facility would be seen as part of an extensive sensitive panorama from their elevated location which encompasses the southern sloping valley containing houses of Weston Mill, the characteristic flats at Barne Barton, the Dockyard and the Cornish landscape beyond. The proposed building would be seen as a significant new feature within this landscape, it would break the horizon and result in the loss of some views of Barne Barton and Blackies Wood.

7) **Saltash Road (North) significant effects,**

Some residents would experience the completed building as a new element to the existing large dockyard setting. The change to the view involves the loss of views of Barne Barton and of Blackies Wood and the proposal will break the horizon formed by the hill of Barne Barton beyond.

8) **Alexandra Park, Keyham significant effects**

Alexandra Park is a local recreational facility and vantage point, where the views of the landscape are extensive. Users would perceive the completed building as a new and significant feature within an extensive landscape of urban forms and would notice its relative scale and the partial loss of views of Barne Barton and Blackies Wood as a result of it.

9) **St Budeaux Recreation Ground, St Budeaux, significant effects**

A local recreational vantage point where the views of the landscape are extensive. Users at this location would experience the completed building as a new and significant feature within an extensive landscape of urban forms, they

would notice its dominant scale and the partial loss of views of the Dockyard, the River Tamar and the Cornish landscape beyond.

10) **Cardinal Avenue** - significant effects

Some residents of Cardinal Avenue who presently have elevated views overlooking the vast majority of the area to be occupied by the main building would have their view changed by the construction and completion of such a large building. It has been demonstrated by the applicants in their submission that some residents of Cardinal Avenue would experience a major significant adverse effects not only during the construction phase, but also on completion. The building could be perceived to 'intrude' into the wide panoramic distant views currently enjoyed by some residents. This effect could not be mitigated over the years by the growth of trees as part of the off-site landscape measures. By year 15 effects of Major significance would still remain from this viewpoint affecting the same residents of Cardinal Avenue. However the view would be of the proposed building's narrower north eastern elevation set in the context of the Dockyard with the River Tamar and views of Cornwall beyond.

Extensive development took place in the late 20th century with the creation and expansion of the dockyard and some of that expansion has been overlooked by local residents including residents of Cardinal Avenue over the years. The present MoD storage areas on the site are not attractive and future building operations can be expected over the years in a busy modernising dockyard and the new building could have a changed industrial setting. Nevertheless this issue highlights the importance of Design if the proposed large new building is not to be perceived as an 'intrusive' detrimental feature over the years.

The issue of visual impact needs to be assessed in context. Extensive development took place in the late 20th century with the creation and expansion of the dockyard and some of that expansion has been overlooked by local residents including residents of Cardinal Avenue over the years. The present MoD storage areas on the site are not attractive and future building operations can be expected over the years in a busy modernising dockyard and the new building would have a changed industrial setting. There is no right to the preservation of existing views from individual properties although the extent of change which the proposed building would give rise to will affect a sufficient number of people, including the general public from a number of vantage points, for the protection of views to be a matter of public interest in the determination of this planning application. In some local views, notwithstanding the high quality of design, the impact is likely to be significantly adverse. However, the quality of the design is such that the building would come to be accepted over time as a valuable addition to the cityscape notwithstanding the loss of existing views. This issue highlights the importance of the design of the proposed large new building. It is not to be perceived as an 'intrusive' detrimental feature over the years.

Because of its striking form, massing, detailing, materials and colours the design of the main building should result in an important landmark feature seen from key approach corridors, from the railway, and from the River Tamar and will in due course be seen to contribute positively to the neighbourhood's

identity. The provision of public art in the form of an entrance sculpture opposite the community primary school would also contribute positively to the neighbourhood's identity and accord with CS 34 and the Design SPD (Section 6 Safe and Attractive Streets and Spaces). This will all serve to temper the visual impact on the area as a whole, as will the proposals for further off-site landscaping which will be secured through the obligation. To the extent that the loss of visual amenity has indirect wellbeing effects, those are issues which the proposed Community Fund is designed to address.

Sunlight/daylight and overshadowing effects

The methodology and conclusions of the daylight and sunlight chapter by the applicants' technical consultants have been assessed by the Local Planning Authority with independent advice obtained from the Building Research Establishment. In conclusion the applicants study is considered to be appropriately based on the guidance in the Building Research Establishment BRE Report 'Site layout planning for daylight and sunlight: a guide to good practice', which is widely used by local authorities to evaluate daylight and sunlight impacts.

The results show that the calculated impact of daylight and sunlight loss on the surrounding dwellings is within the BRE guidelines. Accordingly the applicants' conclusion, that there would be no materially unacceptable daylight, sunlight and overshadowing impacts is accepted.

Daylight and sunlight provision was calculated for windows to the rear of properties facing the site along Hamoaze Avenue, the front of properties along Wolseley Road, and windows to flats at Savage Road and Talbot Gardens. All of the windows assessed meet the BRE guidelines. Comparing the results from the applicant's technical consultants report (Nathaniel Lichfield and Partners) with those of BRE, the values for Wolseley Road and Savage Road are in agreement within reasonable margins of error.

The effect therefore of the new development on daylight and sunlight provision to properties in the surrounding area would meet the BRE guidelines in all cases and the proposal would accord with CS34 in this respect.

Conclusion - Design and Visual Impact issues

Overall, and despite its visual prominence from some locations, it is considered that the main building would become accepted within its surroundings in terms of style, siting, layout, orientation, visual impact, local context and views, scale, massing, height, density, materials and detailing. The buildings scale would provide a strong visual presence relative to the natural and built forms that surround it and provide a valued quality landmark building, meeting the requirements of the Council's design policies and guidance.

It is considered that from the Landscape and Visual Impact Assessment (LVIA) that the greatest visual impacts are those upon the closest residents to the application site at Barne Barton and those overlooking it at Weston Mill. In assessing the weight to be accorded to those impacts it is relevant that changes brought about to visual amenity by temporary construction activities are not unusual during major building projects throughout the city and none of the impacts result in an entire loss of visual amenity. Alternative views are

available to affected properties and, with the quality landmark building and effective landscaping established, those changes would over time come to be accepted. Overall, officers have concluded that the significant adverse impact which would result from the proposal to the identified local viewpoints is clearly outweighed by the need and benefits of the proposed development.

The Section 106 clauses (Appendix 1) particularly in Schedule 3 are essential requirement to ensure integration of the structure into its setting and compliance with CS02 and CS33 and CS34.

Schedule 3 clauses would secure a sum of £390,000 which is required for off-site landscaping and amenity measures and their maintenance for 25 years; a landscaped public open green space for 25 years (or the life of the development whichever is longer). And 25 years maintenance of the principal landscape measures identified on the approved Landscape Masterplan. These requirements would in accord with CS02, CS30, CS 33, CS 34, W7 4 and W8 1, 2 and 5.

10.7 Impacts upon the historic environment and listed buildings

Whilst undoubtedly large, the current proposed building may be seen as an addition to the large structures already evident in the dockyard and the historic setting of the listed buildings in the area would not be adversely affected (The 'Mixing House' to the west and the HMS Drake complex to the south).

The latest corrected photomontages show the relationship between the proposed development and the group of listed buildings at HMS Drake and the applicants The Cultural Heritage assessment considered that the significance of the setting of the listed buildings would be preserved. It is considered that the proposals would not impact on views of one building to another or the parade ground and therefore on the significance of the historic structures as a group is in accordance with CS03, W7 3, 6 and W8 1 and 9. The proposal therefore protects the setting of historic environment assets.

The proposed cable and pipeline routes for the EfW CHP facility run along areas of previously disturbed, truncated, levelled or reclaimed land. The applicants point out that none of the proposed cable or pipe routes would be inserted below the depth of the made ground and would therefore have no impact. Where proposed cable routes would run in areas of archaeological potential such as the 33kV route near the listed buildings of HMS Drake, it would be important not to damage any of the fabric of the listed structures and it is considered that a condition is warranted in compliance with CS03, W7 3, 6 and W8 1 and 9.

The applicants point out that due to the negligible quantity of sulphur dioxide that would be present in the ambient air as a result of the EfW CHP facility the construction of the EfW CHP facility would not be expected to pose a risk to the fabric of buildings at HMS Drake. English Heritage has considered the photomontages and cultural heritage assessment. They have also been made aware of the inaccuracies in the original photomontages (see section 5 above)

and consider the addition of 4m height to the visuals does not alter its previous views/comments.

Policy CS03 states that the Council will safeguard and where possible enhance historic environment interest and it is considered that the possibility arises as the applicants are proposing a visitor centre on the site with a roof garden overlooking an area of historic significance for the City where heritage features can be referenced. The opportunity occurs to interpret heritage matters as well as recycling benefits and local nature conservation matters. The applicants are proposing this in their submission.

It is suggested that the views of the EH are endorsed and the Section 106 clauses (Appendix 1) particularly in Schedule 3, are essential requirements to ensure protection of the setting of listed buildings and promotion of heritage visitor interpretation in compliance with CS03 and CS33 and CS34, W7 3, 6 and W8 1 and 9.

The MoD would be a signatory of the Section 106 and the requirement would be that before the EfW CHP facility becomes operational the applicant would be required submit to the Local Planning Authority for approval a scheme of interpretation, setting out how the applicant would make available to the public, information in respect of the historic assets within the site and adjacent dockyard.

10.8 Impacts upon the Natural Environment and Amenity issues

Regulation of all aqueous discharges from the site is a matter that the Environment Agency will need to address in due course through the consenting process for the Environmental Permits that would be required for the plant to operate. As part of that process, the EA will carefully scrutinise the proposed design for the water treatment plant. If a permit is granted, we would expect it to set limits on the quality and quantity of effluent that the plant would be permitted to discharge. We would further expect that these limits would be set having regard to the need to protect human health and the environment. However, it is for the Local Planning Authority to ensure that the design of the proposal and control measures are such that significant effects on the environment do not arise or, if they do are adequately mitigated. Conditions are suggested that reflect the requirements of the EA and deal with matters relating to the Habitats Regulation Assessment (Appendix (5)). It is considered that provisions to secure effective surface water management and maintenance are important. The risk of pollution of surface water needs to be minimised and the risk that polluted water might reach an ecologically sensitive area must be avoided. Flood risk needs to be managed, and details relating to these issues need to be submitted to and approved in writing by the Local Planning Authority.

In commenting upon the planning application, the Environment Agency raised several matters relating to ecological issues and these were incorporated in the Regulation 19 letter and addressed by the applicants in response. The proposals are now considered acceptable to the EA subject to the imposition of conditions (reflected in the recommendation in this report).Following

consideration of the requests for further details, information was subsequently received relating to various matters including: reptile habitat creation and translocation; some biodiversity enhancement of the surface water swale that runs at the back of the site and an updated Ecological Management Plan.

The Environment Agency also requested general watercourse improvements in respect of the Barne Brake Creek to the east of the proposed site as it has the potential to be improved by this development by removing manmade debris from the channel and by removing the length of the culvert (which appears to be redundant) to benefit wildlife movement within the watercourse in addition to allowing inter-tidal Biodiversity Action Plan (BAP) habitat to be re-created.

The applicants accept that twice yearly a comprehensive clearance of all ecologically undesirable debris from the creeks adjacent to the site would take place.

As the culvert works would involve an area of Network Rail land outside the application site (and Network Rail have given approval in principle) it is considered that this matter would be best addressed in implementing proposals in an approved detailed Ecological Mitigation, Enhancement and Management Plan (EMEMP). Such environmental improvement works would accord with CS19 and CS33, W7 3 and 6 & W8 1 and 9.

Clarifications and further information have been provided concerning emissions from the chimney and their effects on ecological receptors. The applicants were advised that a more stringent lower limit critical load levels on Air Quality should be applied to the sites of ecological interest in the area and there needed to be clarification of Predicted Environmental Concentration (PEC) to enable a better assessment of the potential air quality impact to Ernesettle County Wildlife Site. These issues were addressed.

The possible impacts of the project on the Natura 2000 sites are considered to arise from:

- Disturbance due to noise/vibration during construction or operation on sensitive species;
- Water quality impacts; and
- Air quality impacts (both from the operational EfW CHP facility and from road traffic).

A marine estuary survey has been undertaken and the results provided. The results do not alter the conclusions of the ES. All the possible impacts of the project on the Natura 2000 sites have been screened out by the Local Planning Authority in the Habitats Assessment (see Appendix 5) and it has been concluded that no likely significant effects might be occasioned by MVVs proposed Energy from Waste Plant on the sites.

Natural England has indicated that they are satisfied with the conclusions of the HRA. As such there is no need for further assessment of this proposal against Regulation 61 of the Habitats Regulations 2010 (see section 10 above)

Given the conclusion reached by the competent authority as to the likelihood of the development having no significant effect upon protected habitats or species, it is concluded that the proposal would not give rise to harm to acknowledged nature conservation interests in compliance with CS19 and CS22, W7 3 and 6 & W8 1 and 9.

The cumulative effect of other programmes and projects, including the Shoreline Management Plan policies, the maintenance dredging, the Devonport Landing Craft Co-location Project (DLCCP) and the effect of other existing consented discharges were addressed in the Habitats Regulations Assessment and the conclusion reached that even in accumulation, there would be no likely significant effects.

The Project Manager for the DLCCP has been contacted and they have provided a copy of their construction programme to the applicants who point out that there would be no overlap in the piling activities associated with the two projects.

It is considered that this should be secured in the Construction Management Plan to ensure that the proposal would have no significant effect upon water quality in accord with CS22, W7 3 and 6 & W8 1 and 9.

It is considered that the applicants' proposals to enhance mitigate and manage the site for ecology will result in no net ecological loss on site. However, in order to comply with policy it is essential to ensure biodiversity gain (CS18 and CS19 and CS33, CS34 W7 3 and 6 & W8 1 and 9).

A detailed Ecological Mitigation, Enhancement and Management Plan (EMEMP) needs to be agreed with the Local Planning Authority prior to commencement of works on site and it would need to include the requirement to adhere to a timetable for the completion of detailed mitigation and enhancement works relative to the EFW CHP construction timescales to ensure that the agreed mitigation works are completed in advance of when the impacts occur. (See schedule 3).

The applicants' would prefer that the details were agreed prior to the commencement of the main constructional works of the EFW CHP Facility. It is considered that this would not be acceptable as some mitigation measures need to be put in place at the outset.

Biodiversity gain must be achieved through the provision of off-site biodiversity enhancements at local sites of wildlife interest in accordance with Plymouth City Council's Core Strategy Policy CS19, CS33, W7 6 and W8 9 (and to complement Plymouth City Council's Green Infrastructure (GI) Delivery Plan). A sum of **£250,000** over a period of 25 years is required in order to facilitate improvements and enhancement works to the agreed sites in the locality including improved access and interpretation, habitat maintenance and habitat creation/enhancement.

10.9 Pollution mitigation and Cumulative effects at sensitive locations

It is evident from many letters of representation that there is a public fear of health risk associated with this planning application for what is termed an Incinerator. The weight that the Local Planning Authority attaches to such fears depends on the conclusion as to whether such fears are capable of being objectively justified by reference to evidence.

Planning policies are required to protect people and the environment from unsafe unhealthy and polluted environments and to ensure that development proposals are refused which cause unacceptable noise, nuisance or light pollution, water, air quality impacts or unacceptable risk to health and safety. In terms of these issues there are no outstanding policy objections, or objections from statutory consultees which would indicate that the issues underlying the concerns raised by members of the public and other organisations are justified or if they are, cannot be mitigated by appropriate obligations or conditions. Such fears do not materially add to the weight of considerations against the grant of permission.

Air quality

The applicant carried out dispersion modelling for a 95 m stack which was used to support its application for an Environmental Permit from the Environment Agency.

The concerns expressed in many letters of representation are focused on air quality -- that is the substances that would be emitted by the stack from the combustion process. Air quality in this regard is a matter for the Environment Agency through the environmental permitting system once waste arrives and incineration commences.

The Environmental Permit would control the materials to be accepted for incineration, the incineration process and the nature and extent of processes to deal with emissions to air from the incineration process. These controls involve setting limits for the substances that are to be emitted to air and establishing a monitoring regime. It is the Environment Agency which has the expertise to deal with air quality issues arising from the stack. PPS10 indicates that unnecessary duplication should be avoided. However, it is for the local planning authority to determine whether, with the anticipated permits controls, whether the effect on air quality and these other matters would be acceptable.

The issue for the Local Planning Authority is whether, with suitable controls in place (whether through planning conditions or the permit) there would be an unacceptable effect on air quality

The emissions from vehicles combined with those from the stack can affect air quality and can be a matter for the planning system. Vehicular movements directly associated with the development would not cause unacceptable impacts upon air quality. The applicants have demonstrated sufficiently and the PPS Unit and the EA concur that the impacts from construction traffic

would be negligible and the predicted increase in air pollution from the EfW facility, in terms of combined traffic and process emissions is accepted as small. With increased monitoring as suggested by the PPS Unit as part of a Section 106 'package' to validate the predictions it is considered that the proposal would accord with CS 22 and CS33, W7 3 and 4 & W8 1, 2, 3 and 9.

Air quality must also be assessed in relation to the effect of the emissions on the Natura 2000 sites. This is considered in section 10.8 above (together with the effect upon water quality).

Having considered the information submitted by the applicants in the ES and having considered the views of consultees, including the EA Permit statement (appendix 8) it is considered that if adequately permitted there will not be a significant effect on air quality and air quality issues do not militate against the grant of planning permission.

Adverse impacts upon amenity

PPS has the expertise to deal with nuisance complaints associated with unacceptable developments and monitoring associated with such. The detailed technical analysis of the likely impacts of this proposal has led the PPS Unit to **not object** to this planning application.

It is considered that the applicants have adequately considered the off-site impacts in terms of pollution (in accordance with CS34, W7 4 and 6 & W8 1, 2, 3 and 9) and although there is no evidence that the proposal would cause unacceptable pollution which would warrant refusal (in accord with CS22, W7 4 and 6 & W8 1, 2, 3 and 9) there is a **potential** for the amenity of nearby residents of the **Talbot Gardens** apartment blocks to be adversely affected by both nuisance from dust over a 25 month period and then by noise disturbance from the plant if the predicted noise levels were exceeded. There could be further disturbance adding to these cumulative impacts if deliveries on Sundays and Bank Holidays cause disturbance problems for them.

Temporary disturbances from construction operations might be expected for residents overlooking a dockyard building site but the nature of the compacted filled ground would indicate the potential for dust to be created during earth moving operations and piling and from the comings and goings of construction vehicles between the building site and the proposed 'Table Top Mountain' construction compound. Some 40,000 cu.m of waste would be generated during the construction phase and approx 82% would remain on site. A comprehensive and detailed Construction Environmental Management Plan (CEMP) is warranted detailing the arrangements for managing all environmental effects of the development during the construction period, prior to commencement of works. Effective dust suppression measures and procedures would be required to be in place and effectively managed for 25 months to reduce offsite exposure to contamination and to minimise the likelihood of complaints of nuisance from nearby residents particularly from nearby residents of the Talbot Gardens apartment block (see clause).The

belt of mature tree cover on the site boundary between the areas would also require management, protection and reinforcement.

The primary noise source from site operations is likely to be the air cooled condensers, which would be situated at the eastern side of the building, away from the nearest residential properties at Talbot Gardens and Savage Road and between a railway

A detailed technical analysis has been carried out to test the noise impact conclusions of the applicants' Environmental Statement and the applicant's design and orientation of the building and choice of materials in construction should result in elevated noise levels in the surrounding vicinity up to 5dB during normal operations. Although this would be noticeable to some residents it would not cause unacceptable pollution in accordance with CS22, W7 4 and 6 & W8 1, 2, 3, 5 and 9. It is the view of PPS that this predicted rise is on the limit of acceptability, and they strongly believe that noise will have to be closely controlled during the life of the plant.

It is considered that conditions relating to operational noise levels and restricting any tonal element to the noise are warranted to secure acceptable noise levels in accordance with CS22 and CS34, W7 4 and 6 & W8 1, 2, 3, 5 and 9. This will also be an issue addressed by the EA but the proposed planning conditions and obligation will ensure that the noise impacts are acceptable in planning terms.

It is considered that the Section 106 should require provision of a Noise Management Plan with monitoring website stations, and meeting arrangements for a Monitoring Steering Group (comprising operator and regulators), with 25 year funding. Reviews would compare actual and predicted noise levels and the appropriate measures to be taken (Appendix 1 Schedule 5)

The cumulative impacts that could arise for some of the residents of the nearest Talbot Gardens apartments to the site and building complex are a concern.

It is suggested that the period for Sunday and Bank Holiday deliveries be reviewed after several years to see whether the Local Planning Authority require them to be adjusted to address any justified concerns and complaints and that this would accord with CS22 and CS33, W7 4 and 6 & W8 1, 2, 3, 5 and 9.

The applicants state in their submitted ES that *"where practical noise barriers, close in to construction works, when working in the vicinity of properties on Talbot Gardens, will be provided. This will provide additional mitigation for the short term significant construction noise effects at these properties"* It is considered that details of these noise barriers need to be agreed in the CEMP. Furthermore in an endeavour to reduce noise at ground level for some of the Talbot Garden apartments, it is considered that a permanent 3m high acoustic barrier be provided inside the security fence beside the lay-down area adjacent to the proposed workshops and stores building at the western end of the site.

10.10 Safety concerns

Operation of an Energy from Waste (EfW) plant and a Combined Heat and Power (CHP) network may introduce new hazards in the locality.

The concern about the potential risk of the plant to nuclear safety was expressed in several letters of representation. There is also a perception of risk to the public living or passing through the area as expressed in several letters.

The applicants point out that their Accident Management Plan submitted with the EA documents has been prepared to support the applicants' application for an Environmental Permit from the EA. (as required by the EP Regulations). The section covering the assessment of risk identifies potential hazardous events. It includes an Annex dealing with risk of failures.

The applicant's stated justification for enclosing the AMPlan with several Annexes (produced by MoD in October 2010) was to better explain the site layout and building design. One of the Annexes is a Safety Statement. This Statement concluded that no hazard was likely to arise to the public, HMNB or Babcocks.

It is considered that the applicants' assessment demonstrates that the plant would not interfere with the operation of the Dockyard and that the new hazards identified can be managed appropriately and without unacceptable risk. Following requests for further information and as Network Rail had written objecting to the planning application on the grounds of safety, an updated Safety Statement was submitted in November. The concerns about a collapse of the chimney in respect of train passengers was addressed.

The updated **Safety Statement** demonstrates that any risks introduced by the proposed EfW plant on the site would be tolerable and As Low As Reasonably Practicable (ALARP) and that no hazard was likely to arise to the public, HMNB or Babcocks.

The reports identify hazards (faults) with a potential to affect the area in the event of explosions, a catastrophic steam turbine failure or steam drum burst. The orientation of the turbine within the building and distance of these facilities from vulnerable locations are important factors. Additionally, the original assumption for the outer construction of the EfW plant was a steel frame with concrete block infill. The construction has subsequently changed and the planning application proposes a Kingspan corrugated steel panels with acoustic and insulation sandwich. This change in material significantly reduces the hazard from flying solid debris.

It has been demonstrated that these hazards do not have the potential to have any direct nuclear safety related consequences.

In the event of a burst steam drum there would be no significant *consequence* for inhabited buildings (which are beyond 83 metres from the boiler) or for transient personnel (train, personnel passing by etc.) beyond 42.5 metres from the boiler. Additionally, the *likelihood* of the event ever taking place is extremely low. In safety terms this is defined as *Improbable/Very Unlikely*,

which equates to an event that might happen once in about 100 years or less often. In summary, the *likelihood* of a boiler explosion is extremely low and the *risk* – even for personnel inside of 42.5metres – is *Improbable* i.e. extremely low.

Cylinders at greatest risk of bursting would be those in the waste silo or on the grate. In both cases they would be constrained by the adjacent structure, which would prevent those becoming missiles, hence the assessment states *this pessimistic scenario is unrealistic*. The likelihood of a failure of a cylinder is *extremely low* and therefore there is no need to make the buildings *explosion proof*.

A chimney stack collapse represents a potential hazard to the nearby passenger train rail track. The concerns about risk that were raised by Network Rail have been addressed by the applicants and Network Rail has no objections to the application (see section 7). The applicants have submitted a picture showing the simulated Chimney (mobile crane) and the adjacent Railway Line. Since the 95 metres chimney base is about 117 metres from the rail track it is not possible for the chimney to collapse onto the rail track.

The Core Strategy Policy CS34 states that a relevant consideration that has to be addressed in determining planning applications is whether the development ensures public safety. It is considered that the applicants' have suitably demonstrated in their submission that the layout ensures that the development would not have direct public safety consequences and that conditions are warranted to control activities at the construction, operational or eventual decommissioning stages in the public interest.

It is suggested that a condition is warranted to reflect the assurances made by the applicant about reducing risk by not accepting high, medium or low or very **low level radioactive waste** for disposal in the EFW plant, except with regard to low level radioactive waste found in normal household waste such as smoke detectors and luminous dial watches this would accord with CS34 and, W7 3 and 4 & W8 2 and 3.

10.11 Health and Well Being and Community Benefits

The applicants EIA refers to the ways support for wellbeing can be provided as identified by the National Mental Health Development Unit as being:

- enhancing control;
- increasing resilience and community assets;
- facilitating participation; and
- promoting inclusion.

In the section of the 'Health and Well-being' paper it is clarified as meaning that any impact on wellbeing is mitigated by the process of promoting control, inclusion and participation of members of the local communities in the operation of the facility – in this case through dialogue.

The applicants Health and Wellbeing Assessment (HWBA) is a desk-top review of 'six' key sources of literature and includes a brief discussion of the

impact upon selected determinants of health. It recognises that the construction and operation of the EfW CHP facility is perceived to have the potential to impact on the social determinants of mental wellbeing. It considers the 'direct health impacts' arising from emissions to air, noise and traffic associated with the EfW plant. It draws upon internationally recognised standards for the measurement of air quality/emissions, noise and traffic. It concludes that the health issues arising from these direct impacts would be mitigated for in the overall design proposal and would be well controlled by the plant design and its management.

Cornwall Council expressed the view that the section of the Environmental Impact for social/community impacts does not seem to be as comprehensive as anticipated for a scheme of this nature, scale and location, particularly given its proximity to residential areas. The PCT were of a similar view and carried out a Rapid Prospective Health Impact Assessment and this has informed their comments upon the planning application in full consultation and agreement with the Devon Health Protection Team of the Health Protection Agency (HPA).

It lists 4 limitations of the applicant's submission on:

1) It is limited to considerations of direct health impacts and does not consider the potential '**indirect impacts**' arising from the EfW plant which could affect the local population either immediately, in the short term, or after a longer period of time.

(The more indirect effects through intermediate factors that influence the determinants of health of the population).

2) It does not explore the note of caution given that modern EfW plants are relatively recent and the research of associated health impacts over time is scant particularly with reference to indirect health impacts and the broader social determinants of health.

3) It does not discuss whether there is the potential for distributive health impacts within local population sub-groups nor does it take into account the possibility of higher exposure of socio-economically deprived groups.

4) It does not include reference to public concern, or to public perception of health-risk associated with the EfW proposal.

The Health Protection Agency view of the research examining the links between emissions from municipal waste incinerators and effects on health suggests that while it is *not possible to rule out adverse health effects* from modern, well regulated municipal waste incinerators with complete certainty, any potential damage to the health of those living close-by is likely to be very small, if detectable.

The PCT states that it is not possible to be conclusive about whether new generation incinerators per se will not affect health. *"For this reason **precautionary approaches** must be applied with rigorous pollutant data monitoring of the new EfW facility, contributions to scientific investigations (where appropriate) and application of policy guidance that promotes and protects health as it emerges. This particularly applies to those at most risk*

from exposure – operatives, those living or working close to the facility, the young and those with existing respiratory conditions”.

The intention of the use of the term “*precautionary principle*” is not to suggest that there is not a robust and appropriate statutory process for assessing the proposal.

The PCT have therefore adopted a **precautionary approach** and conducted a

Rapid Prospective Health Impact Assessment of the proposal and this is reflected in their recommendations and mitigating and enhancement suggestions (see section 7) They identified 18 direct impacts and 20 indirect impacts of the planned EfW plant. Some impacts were positive and some negative. As a result of this exercise, NHS Plymouth has identified a number of concerns which it is believed can either be **dealt with by mitigation, or controlled by the application of appropriate planning conditions**.

The NHS approach would appear to advocate ignoring recent evidence on the health risks of EfW facilities in favour of the World Health Organisation’s 2007 conclusions. However, the precautionary approach is not one which requires evidence to be ignored. It is one which requires a judgment to be formed on scientific uncertainty having regard to the evidence which does exist.

It is considered that the issue is not whether or not the precautionary approach should be applied, because that approach is integral to a decision on any development proposal which may give rise to a risk to health. The issue is, whether applying the precautionary approach; the Local Planning Authority can be satisfied that the residual risk to health (assuming that all relevant statutory controls are correctly applied) is acceptable. That is a judgment to be formed having regard to the evidence base which includes the applicants evidence that the health issues arising from the direct impacts would be mitigated for in the overall design proposal and would be well controlled by the plant design and its management. This is the approach advocated by PPS23 and informed by PPS10.

The evaluation of the evidence contained in the application documents together with that contained in the NHS Rapid Prospective Health Impact Assessment report has been considered and the NHS recommendations for mitigating and enhancements (including suggestions a contribution to rents in a proposed Health centre) warrant consideration to fully address the issue.

They make recommendations in respect of the following matters many of which are addressed elsewhere in this report but are listed here for completeness with response in red:

Those concerns that it is believed can be **dealt with by mitigation** are listed –

□ *MVV to deliver a district heating system to Barne Barton **comment-Section 106 funding support to facilitate Esco provision if feasible***

*MVV to conduct a residential property disamenity impact assessment. **comment-within ES***

MVV will actively consider the promotion of access to good public services, including

*health. **comment-Section 106 Community fund***

MVV and Plymouth Planning Authority will consider in full the Section 106

Obligations. *comment-Section 106*

MVV will consider in full the Section 106 Obligations in order that health inequalities

are not exacerbated. *comment-Section 106 as far as CIL compliant and Permit The Planning Authority to confirm that the MVV proposal is acceptable in planning*

policy terms. *Recommendation*

Those concerns that it is believed can be **controlled by appropriate planning conditions** are;

The MVV proposal design to encourage employees to be physically active at work,

e.g. positioning of stairwells, shower rooms, secure cycle parking, staff gym facilities. *Condition and LTP*

The MVV proposal to consider access to open natural space for all employees whilst

at work. *Condition/clause*

The MVV proposal will respond to ongoing community concerns with regard to Construction Dust and Noise, and mitigate accordingly. *Condition/clause*

The MVV proposal to require that all vehicles servicing the site meet lowest emission

standards for all vehicles. *C&I Waste vehicles MOT registered and updated modern municipal waste vehicles in Procurement policy*

The MVV proposal to respond to any public complaints of noise of the plant in construction or operation in a responsive manner. *Condition/clause*

.The MVV proposal to consider, where practicable, additional tree planting and provision of green/brown roofs within the plant complex and buildings and the neighbouring areas. *Condition/clause*

The MVV proposal to ensure that all food provided on-site is locally sourced with healthy options available. *On-site catering will be provided during construction and applicant to agree catering arrangements with SWDWP*

The MVV proposal should not add to the provision of fast food outlets in the local area pre and post construction. *On-site catering arrangements will be temporary and not fast food outlet.*

The MVV proposal should provide opportunities for local voluntary sector use, i.e. use of Visitor Centre facilities for voluntary sector. *Section 106*

MVV should fulfil their duty of care to manage waste created on site and to minimise

resource use and maximise recycling and reuse of materials. *Condition*

MVV should ensure that all sustainable transport options for transporting waste (to

the site and waste materials from site) have been considered. *Assessment within the PASS and Transport Unit comments section 7*

General

MVV to subject the EfW plant design to a full and independent environmental assessment using tailored BREEAM criteria to assess the environmental lifecycle of

the construction/plant including health and wellbeing considerations. *Pre-commencement assessment is BREEAM compliant and an independent assessments take place on completion- Condition*

The MVV proposal should ensure wide accessibility to all sectors of the 'local communities' to derive local health and social benefits and that it will add health

benefit value to Blackie Woods via out-door gyms and social gathering areas.

Section 106

The MVV proposal should encourage the plant workforce towards active travel to work and offer incentives to do so. **Condition -LTP**

The MVV proposal should consider opportunities for recreation facilities for people of

all ages and abilities within Blackie Woods and the adjacent, areas for health benefits. **Section 106**

The MVV proposal should encourage opportunities for accompanied field visits to Weston Mill Creek for educational and environmental purposes. **Section 106**

The MVV proposal has potential impacts upon existing Community facilities, e.g. Tamar View; the MVV Visitor Centre/Facilities should complement and add value for

all sectors of the local community and should demonstrate how it will not disadvantage current community facility provision. **Section 106-community trust**

The MVV proposal should, where practicable, continue with measures to minimise

staff travel by car once the plant is operational. **Condition -LTP**

The MVV Visitors Centre/Community Facilities should be open and accessible for a

wide range of activities at times convenient to the community at incentivised rates or

free of charge for the local community. **Section 106**

MVV to demonstrate its commitment to developing and sustaining the Local Liaison

Committee and the role of the Community Liaison Officer. **Section 106**

The MVV proposal should demonstrate how it will provide a range of opportunities

for skills development which could lead to employment, i.e. via volunteering opportunities at the Visitor Centre facility. **Section 106**

The MVV proposal needs to demonstrate how it will ensure that improved access to

Blackie Woods and how the provision of a local visitor centre will enable quality opportunities for social interaction by local communities **Section 106.**

The MVV Visitors Centre/Community Facilities should be open and accessible for a

wide range of activities at times convenient to the community at incentivised rates or

free of charge for the local community **Section 106**

MVV needs to demonstrate that the expected benefits to bio-diversity will be realised. **Section 106**

MVV needs to demonstrate that the surface water drainage strategy poses no risk to

the development or third parties. **Condition and Permit**

MVV needs to ensure access to monitoring information **Section 106**

It is considered that in so far as the NHS raise matters properly addressed by the planning system then the issues are adequately addressed by the design of the development, the controls which it will operate under and the terms of the proposed planning obligation.

It is recognised that EfW technology is still comparatively new and that detailed studies of the effects of such developments on the local populations into which they have been introduced do not exist. However, such assessments or analysis which have been undertaken have led the Health Protection Agency to conclude that properly regulated, well run facilities of this kind should pose little risk to health. The evidence would not therefore justify rejection of the proposal on the basis of the precautionary approach, indeed the NHS do not advocate that course.

It is acknowledged that there is the potential for indirect effects on the health of some of the local population, resulting from the risk of exacerbating the multiple deprivations in the local area which the proposal is regarded by many local residents as posing. This would be likely to be manifested by increased stress and depression. It is also acknowledged that the impacts during the construction period, although temporary, will be experienced for a lengthy period and are likely to have an impact which requires mitigation beyond the adoption of a construction management plan. Other impacts capable of bearing on the health of the local population e.g. noise at the limits of what is acceptable will be permanent.

Indirect effects of this kind on wellbeing and wellness are not readily quantifiable by reference to any formula, although the NHS has given examples of appropriate evidence based interventions which would assist in mitigating these impacts. The NHS has given the example of a health promoting practice to assist in mitigating these impacts by providing a wide range of wellbeing and wellness services. It is considered that there is a need to ensure that mitigation is in place for these indirect effects and this will be secured through the Community Fund which will be a fund administered by the proposed Community Trust to be drawn down from for expenditure on evidence based interventions of the kind proposed by the NHS. Given the scale of the proposal, the size of the potentially affected area and the costs of likely projects, a pool of £150,000 per annum is recommended (see below). Subject to this contribution, the proposal would be acceptable on wellbeing grounds when seen in the context of other benefits to the locality.

These include the local economic benefits both through employment will have a bearing on health and wellbeing within the local community.

As necessary or appropriate, the NHS suggestions have been incorporated in the conditions and clauses being recommended in this report in accord with CS33 and CS34, W7 1, 4 and 6 W8 1, 2, 3, 9, 10 and 11.

The proposed **North Yard Community Trust**, in managing a **Community Fund** will be the mechanism through which the effects on community wellbeing will be addressed..

It is suggested that The PCT should have representation on the North Yard Community Trust Board to help implement the suggestions not covered by planning conditions.

Community Fund

The effects of a large scale development of this nature designed to serve a sub-regional catchments inevitably can lead to anxiety and there is a feeling expressed in several letters of representation from residents understandably feeling the facility is being “forced upon” them. There is a perception that a community that is already deprived of many facilities is having to absorb increasing environmental impacts from dockyard developments that are of national importance. There is a feeling that on top of that the EfW facility, also of wider than Plymouth importance is also being “dumped on” the community. The perception of some in the community is that the EfW plant would make the situation worse.

There are limits to how the Local Planning Authority can address these matters. The Local Planning Authority working together with the EA can mitigate many effects through their enforcement powers. There would be wider employment benefits, environmental improvements including reductions in carbon emissions from the dockyard and off-site landscaping and positive attempts by the applicants to encourage community engagement . Nevertheless, the desire of the local councillors and community representatives to request the applicants to address the wider cumulative effects on their local community is understandable. The applicants have responded positively in recognising that that a community fund mechanism is not an increasingly common means to address the wellbeing impacts.

It is considered that the Community Fund is essential to address this impact of the development. The Section 106 should include provision for membership of the **North Yard Community Trust** .to include a representative of the PCT and that the scale of contribution required from the applicants for a **Community Fund of £150,000 per annum** reflects the fact that one of its tasks is to contribute to public health-related well being initiatives which have been costed as requiring this level of annual investment.

In considering the direct and indirect impacts on community wellbeing it is considered that controls and mitigation (through the proposed planning conditions and the proposed Section 106 Agreement coupled with the conditions which the EA will attach to the permit) will eliminate the risks or mitigate them to an acceptable level in compliance with CS33 and CS34, W7 1, 4 and 6 W8 1, 2, 3, 9, 10 and 11.

10.12 Adequacy of Community Involvement and Need for continued engagement Community Links, Governance and facilities

An Addendum to the Statement of Community Involvement was produced and provides details of the public exhibitions held after submission of the planning application. Additional information regarding the community benefits was provided.

The requirement for ongoing meaningful public engagement is highlighted in the LSP Compact 'How we consult with you' which forms part of Local

Planning Authority's Statement of Community Involvement. This is to ensure that a local community are informed and reassured that their concerns are being heard, being taken seriously and given due consideration. It is suggested that it is important for people to have direct access to information about latest progress, and an opportunity to ask questions.

It is considered that the process of consultation that the applicants have gone through with people living and working in the local area has met, if not exceeded, all of the requirements of the Councils requirements set out in the Statement of Community Involvement for the pre-application consultation stage and maintained throughout the submission stage. This has included making paper copies of the planning application available in every library in the city and holding a variety of meetings and public events in the areas nearest to the site. (See section 4). The applicants have also established the Liaison Group to give regular updates and discuss issues with interested parties, produced a newsletter that is sent out to 20,000 households in the nearby area and have maintained up to date information on their website. They also have an open office with information about the application available for the public.

It is considered that there is a need for continued community links and engagement to inform people of the construction progress, monitor the plant and consider any related community issues that may occur. The local neighbourhood, which ranks highly on the Index of Multiple Deprivation, needs support and the provision of wellbeing related initiatives and facilities to help mitigate any impact of this development. The proposed Section 106 would provide the framework for the applicants to maintain regular meetings with the Local Liaison Committee, make monitoring information available on-line at a local community centre. Community representation would be secured on the North Yard Community Trust to manage the Community Fund (with set up costs for 5yrs of £10,000 per annum and provision of an appropriate venue). A full time Community Liaison Manager based at the North Yard Visitor Facility would also, amongst other things, oversee delivery of the agreed programme of activities and meetings.

The Visitor Centre would facilitate better understanding among the local and wider community and interest groups of recycling benefits and the waste treatment and energy output processes in operation at the EfW plant with CHP and carbon reduction benefits demonstrated in visual/audio format. It would be made available for accommodating visits by educational, local authority and community groups for the operational life of the project, securing a programme of educational activities relating to waste reduction and recycling and energy initiatives in the locality. It would facilitate provision for a programme of meetings; the use of classroom facilities based within the Visitor Centre, and roof garden above it, with educational activities also associated with a Blackies Wood Local Nature Reserve and interpretation of the dockyard history.

Such provision would accord with CS01 and CS33, W7 1, 3 and 6 & W8 1, 9 and 10.

10.13 Equalities and diversities and Human Rights Act

Human Rights Act 1998

The development has been assessed against the provisions of the Human Rights Act, and in particular Article 1 of the First Protocol and Article 8 of the Act itself. This Act gives further effect to the rights included in the European Convention on Human Rights. In arriving at this recommendation, due regard has been given to the applicants' reasonable development rights and expectations which have been balanced and weighed against the effects on local residents and the wider community interests, as expressed through third party interests / the Development Plan and Central Government Guidance.

The Human Rights Act has been invoked by objectors who allege that the implementation of such a scheme would have a disproportionate effect on their Human Rights and in particular the right to peacefully enjoy property. It is considered that, striking a fair balance between the need in the public interest for the proposed development and the interests of those likely to be affected by it, the grant of permission would involve no disproportionate impact. Fear of Loss of property value is unwarranted as although the environment will change, good design and residential amenity protection policies would be complied with ensuring no disproportionate impact

Several letters have been received expressing concern that the date of the Planning Committee is unreasonable as it would be disruptive to Christmas activities and the Pagan Pride Local Co-ordinator for the South West of the UK (and the Pagan Representative for Plymouth) considers that it is religious discrimination to schedule the Committee date on the Winter solstice which is a known Pagan Religious Celebration.

It is not considered that religious discrimination is evident. The City Council Monitoring Officer has advised that the 22nd is a normal office day and that there is no constitutional reason why the Planning Committee cannot meet to determine the planning application. There has been extensive opportunity provided to make representations on the application which are all available to the Planning Committee. The views of interested parties relating to the batches of 'further information' required consideration (including those of the HA who had issued a 'holding' Direction –see section 7 above). These factors influenced the Chair's choice of Committee date.

As to equality and diversity issues raised by the proposal itself, it should be noted that car parking disabled bays would be provided together with cycle covers and showers and that the proposed community area or visitor centre, would accommodate meeting room / classroom facilities and an exhibition space for artwork. It would be accessible to all community groups including disabled visitors. There would be links with community groups and educational bodies to facilitate wider access and employment opportunities for local people.

The NHS have pointed out that the local population experience multiple deprivations with associated inequalities in health. It is stated that the proposed development has the potential to impact negatively on the physical and mental health and wellbeing of the local population and thus may exacerbate the existing inequalities. Furthermore, it is stated that the cumulative impact of this development is likely to place the greatest burden upon some of the poorest and most vulnerable people in the City. . All these issues have been fully addressed in reaching the recommendation and the grant of permission would involve no conflict with the Council's Equality Act duties. .

9. Section 106 Obligations

In accordance with Circulars 11/95 and 05/05 which relate to the use of conditions and planning obligations that are required in order to make a development acceptable, discussions have been held with the applicants about planning obligations relating to the proposal and the discussions recently led to a revision to their proposed Heads of Terms (originally submitted in May 2011, then updated in the September 2011 in a 'further information' package, and more recently submitted in November 2011 following the consideration of comments and following negotiations). Public notice was given about the applicants proposed Section 106 Heads of Terms in accordance with normal procedures.

Planning Aid held an event in the local area to obtain local opinion on possible Section 106 provisions (see section 7).

Several of the suggested obligations arising from the community would fail compliance with the Community Infrastructure Levy 'tests'. Obligations need to be compliant with Regulation 122 of the Community Infrastructure Regulations 2010. This requires that each obligation is:

a - necessary to grant of planning permission, based upon our general policy framework and site assessment evidence

b - directly related to the development,

and c – fairly and reasonable in scale and kind to the proposed development.

If these tests are not satisfied in relation to any of the proposed obligations then it would be unlawful to take them into account in determining the application, **irrespective of whether the community wished to see them in an agreement or whether the Local Planning Authority and the applicant had agreed them in negotiations or not.**

The required Section 106 schedule of obligations that forms an important part of the recommendation departs slightly from those submitted by the applicants and an explanation is given on their compliance with the Circular 05/05 and the Community Infrastructure Regulations 2010 in Appendix 1.

Several letters of representation have suggested that the Local Planning Authority should impose controls to limit the the geographical areas from which waste would be imported to the EfW plant. The recommended Section 106 obligations and conditions are mindful of recent appeal decisions when applying the CIL 'tests'. Recent Appeal decisions in Oxfordshire and at

Avonmouth have indicated that there is little Ministerial support for attempts to control the geographical areas from which waste is imported to new facilities of this nature.

10. Conclusion

The development is supported by 25 letters of representation including from the South West Devon Waste Partnership, Torbay Borough Council, the Naval Base Commander, Babcock International Limited and Gary Streeter MP. The development is strongly opposed by 591 letters of representation, a petition containing 5,314 signatures, Plymouth Green Party, South Hams Friends of the Earth, Ecolvy and Alison Seabeck MP. The following organisations have raised no objections to the development in relation to impacts of the proposal, several subject to the imposition of appropriate conditions and Section 106 mitigation measures which are recommended to the Planning Committee:

- Environment Agency
- Natural England
- English Heritage
- Highways Agency
- Network Rail
- Defence Infrastructure Organisation
- Health and Safety Executive
- Devon and Somerset Fire & Rescue Service
- Devon & Cornwall Constabulary
- NHS Plymouth Primary Care Trust
- Health Protection Agency
- Plymouth Waste Collection and Disposal Services
- South West Regional Design Panel
- Plymouth Public Protection Service
- Plymouth Transport and Highways Service
- Cornwall Council
- Devon County Council

The Local Planning Authority has carefully considered all the representations made on the planning application, both for and against the proposed development. In assessing the application against an up to date Local Development Framework it is considered that the principle of the development on the site is in accordance with the policy requirements. Specifically, although the site is not allocated in the Waste DPD the proposal is in general conformity with the provisions of Waste DPD Policies W7 and W8.

Notwithstanding the high quality of design, the assessment of the visual impact of the development, given its proximity to existing residential properties, is that some local views will be significantly adversely affected. In this respect the application is not fully in compliance with the provisions of Policy W7(4) but there are mitigation measures in place in accordance with the provisions of W8 (2), (3), (4) and (8). However, the quality of the design is such that the building would come to be accepted over time as a valuable

addition to the cityscape. The adverse impact on a limited number of residential properties is unavoidable, but, in accordance with the requirement of paragraph 19 of PPS1, appropriate mitigation and compensatory measures have been secured through planning conditions and the provisions of the Section 106 obligations. Without all these provisions the development would not be acceptable.

The proposal would result in the permanent loss of land with potential for marine employment contrary to CS03 and in relation to Policy CS04 if granted the development would result in the temporary loss of some operational land. However this needs to be considered in relation to the wider benefits of the project in terms of dealing with waste arising and the CHP benefits of the project.

In relation to all possible impacts concerning noise, emissions, transport, design, landscape, biodiversity, impacts on the environment, community facilities, historic environment, infrastructure etc, and taking into account the advice from relevant agencies, the application is considered to be in accordance with the provisions of the Development Plan.

There is a substantial and compelling need for the facility to meet the strategic waste needs of Plymouth and the SWDWP area. Taking the development plan as a whole, the development is in accordance with its provisions and in making the recommendation to grant planning permission substantial weight has been given to the need for proposal and the benefits that the project would bring, most notably in relation to the overarching importance of maximising CHP and low carbon infrastructure. The overall conclusion is that the development is acceptable and should be granted planning permission.

Recommendation

Grant Conditionally subject to a Section 106 Obligation, with delegated authority to refuse in the event that the Section 106 Obligation is not completed by 31st March 2012.

Planning Conditions

1. **This planning permission is for the construction and operation of an energy from waste combined heat and power facility for the combustion of up to 265,000 tonnes of waste per year and the development hereby permitted shall only be carried out in accordance with the information submitted in support of the application listed below, except in so far as the submitted information is amended by the conditions specified below.**
 - **Planning Application Form (dated 10 May 2011)**
 - **Approved Documents**

- **Planning application and supporting documents May 2011**
- **Volume 1 –ES Main Text May 2011**
- **Planning Application and Environmental Statement Further Information Submitted 7 September 2011 (Regulation 19 response)**
- **Volume 2 – Landscape and Visual Appendices**
- **Revised ES Figure 8 Series: Landscape and Visual**
- **Volume 3 – Transport Appendices**
- **Planning Application and Environmental Statement Further Information submitted 11 November 2011**
- **Planning Application and Environmental Statement Further Information submitted 18 November 2011**

- **Approved Drawings**

- PA01 A Site Location Plan May 2011 A3 1:10,000 scale
- PA02 B Planning Application Boundary May 2011 A1 1:3,000 scale
- PA03 - Existing Site Topography May 2011 A1 1:1,250 scale
- PA04 B Aerial Photograph May 2011 A3
- PA05 0 Proposed Site Layout May 2011 A0 1:500 scale
- PA06A - Proposed North-West Elevation May 2011 A0 1:250 scale
- PA06B - Proposed South-East Elevation May 2011 A0 1:250 scale
- PA06C A Proposed North-East Elevation A0 1:250 Corrected and re-submitted 18 November 2011
- PA06D A Proposed South-West Elevation A0 1:250 Corrected and re-submitted 18 November 2011
- PA07A 0 Longitudinal Section of Entire Main Building May 2011 A0 1:250 scale
- PA07B 0 Longitudinal Section of Water Treatment Building May 2011 A1 1:250 scale
- PA07C 0 Cross Section of Waste Bunker and Bale Store Building May 2011 A1 1:250 scale
- PA07D 0 Longitudinal Section of Turbine Hall May 2011 A1 1:250 scale
- PA07E 0 Longitudinal Section of Tipping Hall May 2011 A1 1:150 scale
- PA08A 0 EfW CHP Building Floor Plans 1 May 2011 A0 1:248 scale
- PA08B 0 EfW CHP Building Floor Plans 2 May 2011 A0 1:250 scale
- PA08C 0 EfW CHP Building Floor Plans 3 May 2011 A0 1:248 scale
- PA08D - Proposed Roof Plan May 2011 A0 1:250 scale
- PA08E 0 EfW CHP Building Switch Gear and Control Rooms May 2011
- PA09A - Proposed Administration Building Floor Plans and Roof Plan May 2011 A0 1:100 scale
- PA09B - Proposed Administration Building Elevations and Section May 2011 A0 1:100 scale
- PA10 - Proposed Air Cooled Condensers Plan, Sections and Elevations May 2011 A1 1:250 scale
- PA11 - Gatehouse Plan and Elevations May 2011 A1 1:50 scale
- PA12 - Stores and Workshop Plans and Elevations May 2011 A1 1:200 scale
- PA13 - Proposed Cycle Shed May 2011 A3 1:50 scale

- PA14 0 Transformer Enclosure May 2011 A2 1:250 scale
- PA15 0 Emergency Generator Elevation and Section May 2011 A2 1:250 scale
- PA16 - North Intake Substation Details May 2011 A3 1:50 scale
- PA17 R Landscape Masterplan Revised – Sep 2011 A1 1:1,250 scale
- PA18A I Landscape Sections 1-1 and 2-2 Revised – Nov 2011 A1 1:500 (section) 1:2,000 (key plan)
- PA18B B Landscape Section 3-3 May 2011 A1 1:500 (section) 1:2,000 (key plan)
- PA18C B Landscape Section 4-4 May 2011 A1 1:500 (section) 1:2,000 (key plan)
- PA18D A Landscape Section 5-5
- PA18E A Section 6 Roof Terrace to 9 Talbot Gardens Nov 2011 A3 Not to scale
- PA19A B Site Access Right Turn Option Revised – Sep 2011 A1 1:500 scale
- PA19B A Site Access Long Section Revised – Sep 2011 A1 1:500 (horizontal) 1:100 (vertical)
- PA19D A Site Access Right Turn Option Exceedence Pathways and Overland Flow Routes
Nov 2011 A1 1:750 scale
- PA19E A Drainage Grip Nov 2011 A3 1:20 scale
- PA20A - Bull Point Access Road May 2011 A1 1:500 (plan) 1:500 (horizontal) 1:100 (vertical)
- PA20B - Bull Point Road Access Tracking May 2011 A1 1:500 scale
- PA20C A Bull Point Road Access Exceedence Pathways and Overland Flow Routes Nov 2011 A1 1:500 scale
- PA21 E Drainage Layout Plan Sep 2011 A3 1:1,250 scale
- PA21-I - Drainage Layout Plan – Bull Point Access Road Detail Sep 2011 A3 1:1,000 scale
- PA22 - Clear Span Bridge Plan and Elevation May 2011 A1 1:200 (plan) 1:100 (elevation)
- PA23 - Connections to Infrastructure May 2011 A1 1:3,000 scale
- 009-02-D123356-406- Construction Works Phasing Plan Nov 2011
- PA24B Rev. B - A38 Weston Mill Junction slip roads -dated 19 October 2011

Reasons: To define the permission and to ensure the permission is implemented in all respects in accordance with the submitted details

C001A DURATION OF FULL PERMISSION

- 2. The development hereby permitted shall be commenced before the expiration of three years from the date of this permission**

3.

Reason: To comply with Section 91 of the Town and Country Planning Act 1990.

C006 PHASING OF DEVELOPMENT

- 4. The works comprised within the area delineated as Stage 2 on drawing number 009-02-D123356-406 (the main construction**

works) of the development hereby permitted shall not be commenced before the works within the area delineated as Stage I on drawing number 009-02-D123356-406 (the Base Enhancement Works) are completed to the satisfaction of the local planning authority and the developer shall notify the Local Planning Authority in writing of the following dates:

- a) 2 weeks in advance of the date of commencement of the construction of Base Enhancement works;
- b) 2 weeks in advance of the date when the main construction works commences.

Reason: In order to comply with the provisions of Section 91 of the Town and Country Planning Act, 1990, as amended by Section 51 of the Planning and Compulsory Purchase Act, 2004 and to assist with the effective monitoring of the planning conditions.

DECISION NOTICE REQUIREMENTS

5. From the date of commencement of the development a copy of this planning permission and all documents approved in accordance with it shall be kept at the Site, made known to the person responsible for operations on the Site, and kept available for inspection during working hours.

Reason: To enable easy reference and to encourage compliance with the requirement of the planning permission so as to ensure the orderly operation of the Site.

C013 HEIGHT AND EXTERNAL MATERIALS OF MAIN BUILDING

6. No part of the main building (other than rib columns and the chimney stack) shall exceed 45m in height and the principal external materials and colours of the buildings shall be as shown on Drawings PA06; PA09B; PA10; PA11; PA12: unless otherwise agreed in writing by the Local Planning Authority:

Plinth: Concrete panels with limestone colour render; **East and West facade wall cladding:** Kingspan Longspan in grey, green, blue and red with grey louvres at the base and white louvres at the top; **Roofing and north and south wall cladding:** Kalzip standing seam aluminium roofing material; **Air cooled condensers:** Kalwall opaque cladding on an angular frame

Reasons To ensure that the height and appearance of the main building respects the character, and context of the surrounding area in accordance with policies CS02, CS03 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and policies W7 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

WASTE CATEGORY AND PUBLIC SAFETY

7. No loads of hazardous waste material shall be accepted at the site for treatment and no high, medium or low or very low level

radioactive waste shall be accepted for disposal in the EFW plant, except with regard to low level radioactive waste found typically municipal waste.

Reasons: This category of waste material was not applied for and would raise environmental and amenity issues which would require consideration afresh, and in the interests of environmental and amenity protection in accordance with policies CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and policies W7 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

RECYCLING WASTE INDUSTRIAL BOTTOM ASH(IBA)

- 8. At least 95% of the IBA produced at the plant shall be recycled and not sent to landfill and records of this shall be kept and procedures for making this available to the lpa shall be in accordance with details agreed in writing by the lpa prior to development within the area delineated as Stage 2 on drawing number 009-02-D123356-406 (the Main Construction Works).The details shall also include the procedures that will be followed to try to secure the use of treated bottom ash as an aggregate for local infrastructure and engineering projects and the mechanisms for ensuring a landfill diversion factor of at least 95%.**

Reason: to optimize the use of residual waste as a resource and to make sure that IBA waste arising from the plant are used in the most sustainable way, in accordance with Strategic Objectives SO11, SO13 and policy CS20 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007

SURFACE WATER MANAGEMENT STAGE I

- 9. No development within the area delineated as stage I on drawing number 009-02-D123356-406 (the Base Enhancement Works) shall be commenced until details of a scheme for the provision of surface water management for the Base Enhancement Works has been submitted to and approved in writing by the Local Planning Authority. The details shall include:-**

- **details of the drainage during the relevant construction phase;**
- **details of the final sustainable drainage scheme;**
- **provision for exceedance pathways and overland flow routes;**
- **measures to prevent pollution of the water environment beyond the site**
- **a timetable of construction;**
- **a construction quality control procedure;**

- a plan for the future maintenance and management of the system and overland flow routes.

Prior to operation of the site it shall be demonstrated to the satisfaction of the Local Planning Authority that relevant parts of the scheme have been completed in accordance with the details and timetable agreed. The scheme shall thereafter be managed and maintained in accordance with the approved details unless otherwise approved in writing by the Local Planning Authority.

Reason: To ensure the drainage system is appropriate to ensure flood risk is appropriately managed and minimise the risk of pollution of surface water by ensuring the provision of a satisfactory means of surface water control and disposal during and after development in accordance with policies CS21, CS22, and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and policies W7 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

SURFACE WATER MANAGEMENT STAGE 2

10. No development within the area delineated as stage 2 on drawing number 009-02-D123356-406 (the main construction works) shall be commenced until details of a scheme for the provision of surface water management for the main construction works has been submitted to and approved in writing by the Local Planning Authority. The details shall include:-

- details of the drainage during the relevant construction phase;
- details of the final drainage sustainable scheme;
- a timetable of construction;
- a construction quality control procedure;
- a plan for the future maintenance and management of the system and overland flow routes.
- measures to prevent pollution of the water environment beyond the site

Prior to operation of the site it shall be demonstrated to the satisfaction of the Local Planning Authority that relevant parts of the scheme have been completed in accordance with the details and timetable agreed. The scheme shall thereafter be managed and maintained in accordance with the approved details unless otherwise approved in writing by the Local Planning Authority.

Reason: To ensure the drainage system is appropriate to ensure flood risk is appropriately managed and minimise the risk of pollution of surface water by ensuring the provision of a satisfactory means of surface water control and disposal during and after development in accordance with policies CS21, CS22, and CS34 of

the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and policies W7 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

SURFACE WATER MANAGEMENT OF SWALE

- 11. No development within the area delineated as stage 2 on drawing number 009-02-D123356-406 (the main construction works) shall be commenced until details of the swale to be constructed along the western boundary of the site has been submitted to and approved in writing by the Local Planning Authority.**

Prior to operation of the site it shall be demonstrated to the satisfaction of the Local Planning Authority that relevant parts of the scheme have been completed in accordance with the details and timetable agreed. The scheme shall thereafter be managed and maintained in accordance with the approved details unless otherwise approved in writing by the Local Planning Authority.

Reason: To ensure the drainage system is appropriate to ensure flood risk is appropriately managed and minimise the risk of pollution of surface water by ensuring the provision of a satisfactory means of surface water control and disposal during and after development in accordance with policies CS21, CS22, and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and policies W7 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

DESIGN OF ACCESS BRIDGE AND RELATED SECURITY SCREEN

- 12. No development within the area delineated as stage 2 on drawing number 009-02-D123356-406 (the main construction works) shall be commenced until details of the vehicular access bridge and related security screen has been submitted to and approved in writing by the Local Planning Authority.**

Prior to operation of the site it shall be demonstrated to the satisfaction of the Local Planning Authority that relevant parts of the scheme have been completed in accordance with the details and timetable agreed. The scheme shall thereafter be managed and maintained in accordance with the approved details unless otherwise approved in writing by the Local Planning Authority.

Reason: To ensure the bridge and security screen design are appropriate and do not increase flood risk or have a detrimental environmental impact in accordance with policies CS21, CS22, and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and policies W7 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

FLOOD EMERGENCY MANAGEMENT PLAN

- 13. No development approved by this permission shall be brought into use until a flood warning and evacuation procedure has been submitted to and agreed in writing by the Local Planning Authority.**

Reason : To minimise risks to users of the facility during times of flood impact in accordance with policy CS21 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007

IMPLEMENTATION OF APPROVED REMEDIATION SCHEME FOR GROUND GAS

- 14. Prior to the commencement of the main construction works the applicant shall install the approved ground gas protection measures to a level of CS3 of BS8485:2007 (referring to tables 2 and 3) The Local Planning Authority must be given two weeks written notification of commencement of the remediation scheme works. Following completion of measures identified in the approved ground gas remediation scheme, a verification report (referred to in PPS23 as a validation report) that demonstrates the effectiveness of the remediation carried out must be produced, and is subject to the approval in writing of the Local Planning Authority. This report must include independent verification of remediation measures in accordance with the agreed terms.**

Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with policy CS22 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007

SITE PREPARATION AND INVESTIGATION OF LANDSCAPED AREAS

- 15. Prior to the plant being brought into use, an investigation and risk assessment of all landscaped areas within the site in addition to any assessment provided with the planning application, must be completed at final formation level. The investigation and risk assessment shall be undertaken by competent persons and a written report of the findings shall be submitted to the Local Planning Authority for approval. In the event that the report identifies contamination, a remediation scheme must be submitted to and approved in writing by the Local Planning Authority and any measures shall be implemented in accordance with the recommendations of the approved report, to the satisfaction of the Local Planning Authority, prior to the plant being brought into use .**

Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with policy CS22 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008

REPORTING OF UNEXPECTED CONTAMINATION

- 16. If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until the developer has submitted, and obtained written approval from the Local Planning Authority for, a remediation strategy detailing how this unsuspected contamination shall be dealt with. The remediation strategy shall be implemented as approved. Following completion of measures identified in the approved remediation scheme a verification report must be prepared, and be approved in writing by the Local Planning Authority**

Reason: To protect controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors and the environment in accordance with policy CS22 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008

BLACKIES WOOD RISK ASSESSMENT

- 17. Use of the plant hereby permitted shall not commence until a scheme for regulating public access to Blackies Wood shall be submitted to and approved in writing by the Local Planning Authority. The wood must not at any time be opened for general public access without written approval by the Local Planning Authority following robust risk assessment by the applicant and any necessary remediation.**

Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with policy CS22 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

- 18. No development shall take place until a Construction Environment Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The approved plan shall set out the arrangements for managing all environmental effects of the development during the construction period, including but not limited to: traffic, temporary site security fencing, artificial site illumination, noise, vibration, control of vermin, dust including management of stockpiles, air pollution and odour, including those effects from any decontamination of the land, wheel wash facilities, the control of mud on roads and crushing and piling operations. The agreed CEMP shall be implemented in full throughout the duration of the construction works, unless a variation is agreed in writing by the Local Planning Authority, in advance.**

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and/or dust, odour and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007. and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008

NOISE LEVELS DURING CONSTRUCTION

19. The noise levels indicated within the submitted Acoustics Technical Note dated 28th July 2011 are the maximum permitted levels. If during the stage 1 and stage 2 construction phases of the development noise levels exceed the approved limits then the noisy activity shall cease until such time as noise reduction measures have been carried out. Noise monitoring shall then be carried out to verify that the noise levels do not exceed the approved limits.

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007.

COMMISSIONING MANAGEMENT PLAN

20. Prior to the commencement of the commissioning phase, a written Commissioning Management Plan and timetable of operation for the commissioning phase shall be submitted in writing to the Local Planning Authority for approval. This plan shall indicate each stage of the commissioning phase, any potential impact on residents, timetable of events, mitigation controls and consideration of weather conditions, and how the information will be made available to the public. The commissioning shall not commence without written approval of the Commissioning Management Plan by the Local Planning Authority. The approved Commissioning Management Plan shall be followed throughout. Any alteration to the plan shall not be made without the prior written approval of the Local Planning Authority.

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and/or dust, odour and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

OPERATIONAL NOISE AND START-UP NOISE PROTOCOL

21. During the operational phase of the development, prior to any planned noisy events (e.g. testing the operation of the emergency pressure valve, steam purging) the Local Planning Authority shall be given written notice of the events, which shall not be carried out other than between the following hours:

09:00 – 17:00 Monday to Fridays. No such planned noisy events shall take place on Saturdays, Sundays, Public or Bank Holidays. Prior to re-start of the facility after either breakdown or maintenance shut-down the re-start process should be planned so that all noisy events during the process, such as exhaust steam valve testing, will not occur outside the following hours: 0900-1700 Monday-Fridays and 1000-1600 Saturdays and Sundays. A protocol for the procedures to be followed to avoid noisy activities such as exhaust steam valve testing occurring at unsocial hours outside 0900-1700 Monday to Fridays shall be submitted to, and receive the written approval of the Local Planning Authority prior to the commissioning of the plant. Evidence of adherence to this protocol shall be maintained by the operator for inspection by the Local Planning Authority when requested.

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008

POLLUTION MINIMISATION PROTOCOL - SITE TRAFFIC

22. Prior to the commencement of site preparation works, a protocol for the procedures to be followed for minimising any adverse impact that the warning signals emitted by reversing vehicles may have on residential amenity and for minimising noise and air pollution from any HGV traffic queuing on the access road shall have been submitted to and have had the written approval of to the Local Planning Authority. The arrangements that are approved shall be implemented and maintained throughout the life of the site.

Reason: The proposed site is in vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and air quality adverse effects and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

OPERATIONAL ODOUR, LITTER AND DUST MANAGEMENT PLAN

23. An Odour, Litter and Dust Management Plan shall be submitted in writing and approved by the Local Planning Authority prior to the works comprised within the area delineated as Stage 2 on drawing number 009-02-D123356-406 (the main construction works) and the approved Plan shall be adhered to at all times during the operation of the plant. This shall include but not be limited to:-

- The restrictions over outdoor storage of waste and the waste sorting location**
- The covering requirements of vehicles**
- The control of doors to the tipping hall to ensure that they remain closed at all times when not in use, or not accepting deliveries of waste.**

- **The details of access road odour control measures.**

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and/or dust, odour and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

NOISE MITIGATION –ACOUSTIC BARRIERS AND LOUDSPEAKERS

24. Acoustic barriers shall be erected adjacent to the site access road in the locations to be agreed in writing by the Local Planning Authority as part of development within the area delineated as stage 1 on drawing number 009-02-D123356-406 (the Base Enhancement Works) and along the northern boundary of the proposed Maintenance Lay down Area (west of the Workshop building) as part of development within the area delineated as stage 2 on drawing number 009-02-D123356-406 (the Main Construction Works) in accordance with full detailed specifications having the prior written approval of the local planning authority. The barriers shall be maintained in place for the life of the plant. Any public address system or loudspeakers used within the site boundary shall not be audible beyond the site boundary.

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

WORKSHOP OPERATION

25. The workshop shall not be operational between the hours of 23:01 to 06:59. Any opening (windows and doors) shall remain closed during use of the workshop.

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

NOISE MITIGATION DURING PERIODS OF SHUT DOWN

26. In accordance with section 14.6.64 of the ES, no baling and storage of wastes shall take place on the site other than during periods of breakdown, planned shutdown or maintenance of the facility.

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core

Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

OPERATIONAL TONAL NOISE

- 27. There shall be no tonal element to the noise emitted from the plant during operation at night (23:01hrs to 06:59hrs), as measured by the methodology set out within BS 7445.**

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

OPERATIONAL NOISE LEVELS

- 28. The rating level of the noise emitted from the site shall not exceed the existing background noise level values reported at the receptors identified in the ES by more than 5 dBA at the relevant time of day (07:00 to 23:00) or night time (23:01 to 06:59). The noise levels shall be determined and the assessment shall be made according to BS 4142:1997. The application or otherwise of an acoustic character correction in order to determine the rating level shall be in line with the advice of BS 4142, with any discrete note assessed as per the advice on tonality of the note to section 4.1.2 of BS 7445:1994.**

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

HANDLING OF WASTE AND RECYCLABLE MATERIALS

- 29. No waste or recyclable materials shall be unloaded, or loaded other than within the building. Details of the layout and location of such loading/unloading areas within the building shall be submitted to and approved in writing by the LPA and thereafter those areas shall not be used for any other purpose unless a suitable alternative area is provided**

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

IMPORT/EXPORT HOURS

- 30. For the purpose of this condition the import/export hours are those hours where the facility is open to receive deliveries from refuse collection**

vehicles from any sources, local authority, commercial and industrial sources. This includes delivery of products (such as materials for normal operation and waste products) to the site and removal of bottom ash and APC residue from the site. Any exception to these hours shall only be with the prior written approval of the LPA. The opening hours are

- **Monday to Friday** 08.00 – 19.00
- **Saturday** 08.00 – 18.00
- **Sunday** 10.00 – 16.00
- **Bank Holidays (except Christmas Day and Boxing Day)** 10.00 – 16.00
- **Christmas Day** Closed
- **Boxing Day** 10.00 – 16.00

No HGV vehicles shall enter or leave the Site outside these times.

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and/or dust, odour and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

NOISE MONITORING ARRANGEMENTS

31. A schedule of proposed noise verification monitoring shall be submitted to, and agreed in writing by the Local Planning Authority prior to the plant being brought into use. The schedule shall include, but shall not be limited to, a requirement to monitor within three months of the completion of the commissioning phase of the Energy from Waste Facility and at regular intervals thereafter. Noise measurements during monitoring shall be undertaken at the site for a continuous 24 hour period by a competent person during suitable weather conditions. The results shall be submitted to the Local Planning Authority for consideration in accordance with arrangements set out in the approved schedule.

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

VEHICLE SHEETING REQUIREMENTS

32. No waste materials shall be imported to the Site and no waste or recyclable materials shall be exported from the Site other than in vehicles which are enclosed, sheeted, netted, or equipped with sealed containers. No Air Pollution Control Residue shall be exported from the Site other than in sealed containers. During the site preparation and construction phase of the development, all open-bodied HGVs carrying loose aggregate, cement, soil or other potentially loose or dust generating material into or out of the Site shall be sheeted.

Reason: The proposed site is in vicinity to existing residential properties, whose occupants may experience harm to amenity from dust/odour and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

STREET DETAILS (STAGE 1)

33.No development within the area delineated as Stage 1 on drawing number 009-02-D123356-406 (the Base Enhancement Works) shall take place until details of the design, layout, levels, gradients, materials and method of construction and drainage of all roads and footways forming that part of the development have been submitted to and approved in writing by the Local Planning Authority. The development shall take place in accordance with those approved plans.

Reason To provide a road and footpath pattern that secures a safe and convenient environment to serve Stage 1 of the development in accordance with Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007.

STREET DETAILS (STAGE 2)

34.No development within the area delineated as Stage 2 on drawing number 009-02-D123356-406 (the Main Construction Works) shall take place until details of the design, layout, levels, gradients, materials and method of construction and drainage of all roads and footways forming that part of the development have been submitted to and approved in writing by the Local Planning Authority. The Energy from Waste plant shall not be brought into use until all roads and footways forming part of the Stage 2 works have been completed in accordance with the approved details.

Reason To provide a road and footpath pattern that secures a safe and convenient environment to serve Stage 2 of the development in accordance with Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007.

CONSTRUCTION TRAFFIC MANAGEMENT PLAN (CTMP)

35.The construction of the development hereby proposed shall not commence until there has been submitted to and approved in writing by the Local Planning Authority (who shall consult with the Highways Agency) a Construction Traffic Management Plan (CTMP). The said CTMP shall be submitted within 1 month of the commencement of the Base Enhancement Works (Stage 1) and shall include details of construction vehicle movements including number, type and size of vehicle; construction operation hours; routes being used by construction traffic; contractors car parking arrangements and details

of the consideration of the use of alternative modes of transport for the delivery of bulky items. The construction of the development hereby permitted shall be carried out strictly in accordance with the approved CTMP.

Reason To ensure that the traffic impacts associated with the construction phase of the proposed development does not lead to adverse impacts upon the operation of either the Local or Strategic Road Networks in accordance with Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and the Department of Transport Circular 02/2007 – Planning and the Strategic Road Network.

ACCESS – CONTRACTORS

36. Prior to the commencement of works within the area delineated as Stage I (Base Enhancement Works), an adequate road access for use by contractors with an appropriate standard of visibility shall be formed to the satisfaction of the Local Planning Authority and connected to any adjoining highway in a position and manner to be agreed in writing with the Local Planning Authority.

Reason To ensure an adequate road access is provided at an early stage in the development in the interests of public safety, convenience and amenity in accordance with Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007.

PEDESTRIAN/CYCLE ACCESS

37. The Energy from Waste plant shall not be brought into use until a means of access for both pedestrians and cyclists has been constructed in accordance with the approved plans.

Reason: To ensure that an appropriate and safe access is provided in the interests of public safety, convenience and amenity in accordance with Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007.

CAR PARKING PROVISION

38. The Energy from Waste plant shall not be brought into use until space for a maximum of 51 cars to be parked has been laid out within the site in accordance with details previously submitted to and approved in writing by the Local Planning Authority Reason. The car parking spaces shall thereafter be retained for that purpose and shall not be used for any other purpose.

Reason To enable vehicles used by staff or visitors to the plant to be parked off the public highway so as to avoid damage to amenity and interference with the free flow of traffic on the highway in accordance with Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007.

CYCLE PROVISION

- 39. The Energy from Waste plant shall not be brought into use until space has been laid out within the site in accordance with details previously submitted to and approved in writing by the Local Planning Authority in order to allow a total of 10 bicycles to be parked.**

Reason In order to promote cycling as an alternative to the use of private cars in accordance with Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007.

CYCLE STORAGE

- 40. The secure area for the storage of cycles shown on the approved plan shall remain available for its intended purpose and shall not be used for any other purpose without the prior consent of the Local Planning Authority.**

Reason To ensure that there are secure storage facilities available for staff or visitors to the EfW plant in accordance with Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007.

LOADING AND UNLOADING PROVISION

- 41. The Energy from Waste plant shall not be brought into use until adequate provision has been made to enable delivery/collection vehicles to be loaded and unloaded within the site in accordance with details previously submitted to and approved in writing by the Local Planning Authority.**

Reason

To enable such vehicles to be loaded and unloaded in a safe and convenient location in accordance with Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007.

HGV ROUTE PLAN

- 42. No development shall commence until a scheme showing the details of the HGV routes that will be used by HGVs during the construction period and MSW and C&I waste vehicles delivering to the plant (including from within the Dockyard) has been submitted to the Local Planning Authority for approval. The plant shall thereafter operate in accordance with the approved scheme.**

Reason: To ensure that HGV movements (and in particular bulkers) are restricted to agreed vehicular routes in the interests of highway safety and convenience in accordance with Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007.

C&I WASTE DELIVERY VEHICLES

43. No waste delivery vehicles of less than 4 tonnes nett payload will be permitted to deliver C&I waste to the EfW plant.

Reason: In order to avoid smaller amounts of C&I waste being delivered to the EfW plant which would result in an increase in C&I waste movements over and above those identified in the approved Transport Assessment which could give rise to issues of highway safety and capacity on both the Local and Strategic Road Networks which would be contrary to Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007.

GRAMPIAN CONDITION - A38 WESTON MILL JUNCTION

44. No works shall commence on-site until details of a scheme of improvements to the junction of the A38 Parkway with Weston Mill Drive have been submitted to both the Secretary of State for Transport and Local Highway Authority for approval. The said improvements to both the East and Westbound off-slips (as indicated on SW/URS Drg. No. PA24B Rev.B) are required to address known accident problems and shall be delivered within 6 months of the commencement of the Stage 1 Construction Works (Base Enhancement Works as shown on Drg. No. 009-02-DI23356-406).

Reason: In order to address highway safety concerns relating to the increased use of the A38 Weston Mill Junction by HGV traffic associated with the proposed EfW plant in the interests of public and highway safety in accordance with Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and maintain the efficient operation of the trunk road network.

GRAMPIAN CONDITION - WESTON MILL DRIVE/WOLSELEY ROAD JUNCTION

45. No works shall take place on the area identified as Stage 2 of the construction phase (Main Construction Works as indicated on Drg. No. 009-02-DI23356-406) until alterations/improvements have been undertaken to the signalised junction of Wolseley Road with Weston Mill Drive in order to allow it to be operationally linked to the new signalised right turn on the Dockyard Access Road North in accordance with details to be submitted to and approved in writing by the Local Planning Authority. Such improvements to the junction shall include the provision of pedestrian crossing facilities across the south western arm of the junction and modifications to existing kerbed islands to create 2 no. 3m wide approach lanes.

Reason; In order to provide a safe and operational means of access to the site in the interests of highway safety and convenience in accordance with Policies CS28 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007.

HIGHWAYS AGENCY DIRECTION 1

46. No works shall commence on-site until details of a scheme of improvements to the junction of the A38 Parkway with Weston Mill Drive as generally shown on URS/Scott Wilson's Drawing no. PA24B Rev. B dated 19 October 2011 have been submitted to and approved in writing by Plymouth City Council as local planning authority (who shall consult with the Highways Agency on behalf of the Secretary of State for Transport). The "Main Construction Works" on the site shall not commence until the approved improvement scheme has been constructed and completed to the satisfaction of Plymouth City Council as local planning authority (who shall consult with the Highways Agency on behalf of the Secretary of State for Transport). The "Main Construction Works" shall comprise all other works except those referred to as the "Base Enhancement Works". The "Base Enhancement Works" shall comprise the construction of the main access road; the Bull Point Access Road; the perimeter security fence; and the establishment of the site compound on "Table Top Mountain"; fencing around the site compound; and the provision of a construction electricity supply cable from the DLCCP sub station.

Reason: In the interests of highway safety, the efficient operation of the local and trunk road networks

HIGHWAYS AGENCY DIRECTION 2

47. The development hereby proposed shall not be permitted to generate more than 290 two-way heavy goods vehicles movements per 24 hr period on the Local or Strategic Road Networks without the prior consent of the Local Planning Authority (who shall consult with the Highways Agency on behalf of the Secretary of State for Transport).

Reason: In the interests of highway safety, the efficient operation of the local and trunk road networks

HIGHWAYS AGENCY DIRECTION 3

48. No part of the development hereby approved shall commence until a Site Construction Method Statement or Construction Management Plan has been submitted to and approved in writing by the Local Planning Authority (who shall consult with the Highways Agency on behalf of the Secretary of

State for Transport). The method statement/management plan shall include details of the following:

- on-site construction worker parking;
- anticipated number, frequency and size of construction vehicles entering/exiting the site;
- delivery times of construction material;
- construction operating hours

Such details shall be implemented or phasing agreed in writing, prior to the commencement of works on site and thereafter retained for the duration of the work.

Reason: In the interests of highway safety, the efficient operation of the local and trunk road networks and to safeguard the amenities of neighbouring residents.

HIGHWAYS AGENCY DIRECTION 4

49. No part of the development hereby approved shall be occupied or brought into its intended use until a comprehensive Travel Plan has been submitted to and approved in writing by the Local Planning Authority (who shall consult with the Highways Agency on behalf of the Secretary of State for Transport), developed for all elements of the development hereby permitted.

The Travel Plan will need to be prepared for all elements of the development hereby approved and shall be prepared in line with prevailing policy and best practice and shall include as a minimum:

- The identification of targets for trip reduction and modal shift
- The methods to be employed to meet these targets
- The mechanisms for monitoring and review
- The mechanisms for reporting
- The penalties to be applied in the event that targets are not met
- The mechanisms for mitigation
- Implementation of the travel plan to an agreed timescale or timetable and its operation thereafter
- Mechanisms to secure variations to the Travel Plan following monitoring and reviews

A review of the travel plan targets shall be undertaken within 3 months of occupation of the development and on an annual basis thereafter at the time of submission of the Annual Travel Plan Report.

Reason: In order that the development promotes public transport, walking and cycling, and limits the reliance on the private car.

LANDSCAPING

- 50. Prior to the commencement of the development hereby permitted, a detailed landscaping and aftercare scheme for the Site (the scheme), based on the approved Landscape Masterplan Revised – Sep 2011 plan PA17 R (and landscape drawings PA 18A,B,C,D and E) and the Landscape Strategy in the approved Design and Access Statement shall be submitted for the written approval of the Local Planning Authority. These details shall include detailed planting plans noting species and plant size and proposed numbers for all areas ;proposed finished levels, means of enclosure, hard surface materials and minor artefacts such as the terrace sculptures and furniture.**

Reason: To ensure that satisfactory landscaping works are carried out in accordance with the approved details. The works shall be carried out prior to the occupation of any part of the development or in accordance with the programme agreed with the Local Planning Authority.

C022LANDSCAPE WORKS IMPLEMENTATION

- 51. All hard and soft landscape works shall be carried out in accordance with the approved details. The works shall be carried out prior to the occupation of any part of the development or in accordance with the programme agreed with the Local Planning Authority.**

Reason: To ensure that satisfactory landscape works are carried out in accordance with Policy CS34 of the Local Development Framework Adopted Core Strategy 2006-2021

APPEARANCE OF THE SITE

- 52. The buildings, structures, perimeter security fencing, gates and hard-surfaces shall be completed in accordance with the approved plans before the date when commissioning commences except for the roof terrace which shall be laid in accordance with the approved plans no later than the first planting season following the date when commissioning commences. Thereafter the buildings, structures, perimeter security fencing, gates, hard-surfaces and roof terrace shall be retained for purpose for the duration of the development hereby permitted.**

Reasons: To ensure that the permission is implemented in all respects in accordance with the submitted details; to ensure that the approved design and environmental standards are maintained and to protect visual amenity; in accordance with Policy CS34 of the Local Development Framework Adopted Core Strategy 2006-2021

LIGHTING

53. Permanent lighting on the Site shall be installed and maintained in accordance with the Lighting Scheme described in the Design and Access Statement and details of any floodlighting Details of any floodlighting shall be submitted to and approved in writing by the Local Planning Authority before the use hereby permitted commences Development shall be carried out in accordance with the approved details..

Reasons: To ensure that the details of the development are acceptable to the Local Planning Authority and that they are in keeping with the standards of the vicinity.

TELECOMMUNICATIONS SYSTEMS

54. Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) Order 1995 (or any order revoking and re-enacting that Order with or without modification), no structures, satellite antennae, apparatus or any plant in connection with telecommunication systems shall be installed on the Site, without the prior written approval of the Local Planning Authority.

Reason): To ensure that the permission is implemented in all respects in accordance with the submitted details; to ensure that the approved design and environmental standards are maintained; to minimise the visual impact and to ensure that the appearance of the main building respects the character, and context of the surrounding area in accordance with policies CS02, CS03 and CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and policies W7 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

CESSATION AND DECOMMISSIONING ENVIRONMENTAL MANAGEMENT PLAN (DEMP)

55. Not less than 2 years prior to the planned cessation of the operations hereby permitted, written notice of the planned cessation shall be given to the Local Planning Authority. Not less than 18 months prior to the planned cessation of the operations hereby permitted, a Decommissioning Environmental Management Plan (DEMP) shall be submitted for the written approval of the Local Planning Authority. The DEMP shall include the following details:

- a) the demolition/dismantling and removal of the plant and buildings;**
- b) site waste management including measures to recycle materials on the Site**
- c) hours of working;**
- d) car parking arrangements;**
- e) traffic management;**
- f) decommissioning worker accommodation and support facilities and their means of enclosure;**
- g) measures to control lighting, noise, dust, odours and fumes in order to minimise the adverse effects on the amenity of neighbours;**

- h) temporary storage compounds and stockpile areas;
- i) measures to prevent mud and debris being deposited on the highway;
- j) measures to protect trees and hedgerows;
- k) temporary fencing;
- l) measures to minimise the pollution of surface and ground water
- m) measures to inform visitors and liaise with neighbours;
- n) a restoration scheme; and
- o) a programme for implementation.

Decommissioning shall not commence until the DEMP has been approved in writing and the Site shall be decommissioned and restored in accordance with the approved DEMP.

Reasons: To define the cessation of the development; to protect the amenity of neighbours; to protect flora and fauna; in the interests of highway safety; to protect the natural environment; to minimise the risk of pollution to air, to soil and to the water environment; and in the interests of sustainable waste management; where applicable, in accordance with policies CS34 of the City of Plymouth Local Development Framework Core Strategy adopted April 2007 and policies W7 and W8 of the Plymouth City Council Waste Development Plan 2006-2021 adopted 2008.

AMENITY COMPLAINTS PROTOCOL

- 56. No development shall take place at the site until a protocol for the recording and investigation of all noise and nuisance complaints associated with the development has been submitted to and have had written approval of the Local Planning Authority. The approved protocol shall be implemented and maintained throughout the life of the development in full accordance with the approved details.**

Reason: The proposed site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and/or dust, odour etc and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy adopted April 2007.

MARINE LITTER MONITORING AND REMOVAL

- 57. A scheme of marine litter monitoring and removal shall be submitted to and approved by the Local Planning Authority 3 months following the commencement of the main constructional works. This scheme is to periodically record the levels of litter within zone identified between Points A, B and C inclusive within Weston Mill Creek as identified on the attached condition plan one. Twice yearly a comprehensive clearance of all ecologically undesirable debris shall take place from the defined area. Records of marine litter quanta shall be maintained at the EfW CHP facility and made available to the Local Planning Authority on request. A marine litter annual report**

shall be provided for the Local Planning Authority summarising the outputs and this shall be provided on the dedicated community web site (see schedule 5 in the I06 Agreement). It is understood that the developer may not be solely responsible for all or any occurrence of marine litter within the blue area here indicated.

Reason; To ensure good standards of water quality within the vicinity of this EfW CHP facility for the benefit of the public and the ecology within the water courses identified.

SURFACE WATER RUNOFF

58. A scheme of monitoring the surface water runoff shall be submitted to and approved by the Local planning Authority prior to the commencement of the main constructional works. This scheme is to periodically record the levels of suspended solids, pH, biochemical oxygen demand and visual appearance of the surface water runoff from the development site for a period of one year from commencement of operation. Records shall be maintained at the EfW CHP facility and made available to the local Planning Authority and the Environment Agency on request. Any variations from the norm shall be notified to the Local Planning Authority and the Environment Agency and the EFfW CHP facility. Data shall be provided on the community web site (see schedule 8 of the I06 Agreement).

During the main constructional works development the developer is to carry out daily visual observations of the boundary of the construction site in order to monitor the quality of the water runoff from the site. In the case of any pollution from the construction site being seen, steps must be taken immediately to prevent the water from entering the drainage system and the Environment Agency must be informed.

Reason: To ensure good standards of water quality within the vicinity of this EfW CHP facility for the benefit of the public and the ecology within the water courses identified.

Informatives'

- 1. To assist the Local Planning Authority in monitoring the applicants should notify the LPA in writing within 2 weeks of the issue date of the Acceptance Certificate by the Independent Certifier.**
- 2. The plant shall be operated at all times in accordance with the conditions of the Environmental Permit as the site is in immediate vicinity to existing residential properties, whose occupants may experience harm to amenity from noise and/or dust, odour and to avoid conflict with Policy CS22 and CS34 of the Plymouth Local Development Framework Core Strategy (2006-2021) 2007.**

3. **The EA advises that the applicant should be aware that any works within watercourses will require the prior written consent from the Environment Agency. An application form and further details can be obtained from the Development and Flood Risk Team by telephone on 01208 265090.**
4. **The EA advises that Incinerator bottom ash is classified in the European Waste Catalogue as a 'mirror entry', that is a waste stream that can be either hazardous or non-hazardous dependent on the chemical constituents within the waste. In order to determine whether the waste is hazardous an assessment must be made using the guidance set out in technical guidance document WM2 'Interpretation of the definition and classification of hazardous waste'. As this waste stream is subject to change dependent on the make up of the source waste, a continuing programme of assessment will be required. Systems will need to be in place to ensure that IBA will be adequately tested, and that the waste will always go to an appropriately permitted site.**
5. **The Highways Agency advises that the construction method statement/management plan should include details of the likely routing of construction vehicles to and from the site in order to provide an understanding of the likely impacts on the A38(T) during the construction period**
6. **Network Rail (NR) advise the applicants to prevent drainage discharging onto NR land; That demolitions should be carried out in accordance with an agreed method statement; that any changes in ground levels should involve consultation with NR ;that buildings should not be not be within 2m of boundary fence; that plant scaffolding and cranes must not oversail the railway but should be positioned not to fall on NR land in the event of failure**

Planning Policies referred to in the Officers Report

National Policies

PPS1 (Delivering Sustainable Development) and Supplement (2007)
 Planning Policy Statement 5: Planning for the Historic Environment
 PPS9 (Biodiversity and Geological Conservation)
 PPS 10 (Planning for Sustainable Waste Management)
 PPS13 (Transport)
 PPS22 (Renewable Energy)
 PPS23 (Planning and Pollution Control)
 PPS25 (Development and Flood Risk)
 Government Review of Waste Policy (June 2011)
 Habitats Regulations 2010
 Waste Strategy for England
 Plan for Growth (HM Treasury)

Community Infrastructure Levy (CIL) Tests
National Policy Statement for Energy (EN1)
National Policy Statement for Renewable Energy (EN3)
Draft National Planning Policy Framework
ODPM Circular 06/2005 (Biodiversity and Geological Conservation), 11/95 and 05/2005

Regional

Regional Spatial Strategy
Regional Spatial Strategy (Panel Report) (2007)
Regional Planning Guidance (RPG 10) for the South West Panel Report (2007)
Secretary of States Proposed Changes (2008)

City

Adopted Core Strategy 2006-2021 (2007)
Core Strategy Policies CS01, CS03, CS04, CS08, CS14, CS18, CS19, CS20, CS21, CS22, CS25, CS26, CS28, CS32, CS33, CS34,
Strategic Objective SO13.
Waste Development Plan Document
Devonport Area Action Plan
Planning Obligations and Affordable Housing Supplementary Planning Document
Design Supplementary Planning Document

APPENDIX 1

NORTH YARD ENERGY FROM WASTE PLANT SECTION 106 HEADS OF TERMS AND CIRCULAR 05/05 AND COMMUNITY INFRASTRUCTURE LEVY REGULATION 122 COMPLIANCE STATEMENT

Schedule	Clause	Obligation	Policy Basis for the Obligation	Justification for the Requirement	Basis of the Calculation	Conclusion on Circular 05/05 and CIL Regulation 122 Compliance
Schedule 1: Employment & Sustainability						
1	1	The applicant shall provide a financial contribution of £2 million to the Local Planning Authority to facilitate and enable phased delivery of low carbon infrastructure and a district energy network from the Energy from Waste plant, including potential facilitation, procurement and delivery costs, as the Local Planning Authority deems appropriate.	National strategy and policy requires optimising the low carbon energy benefits from potential developments. In particular the Government Review of Waste Policy in England, 2011 paragraphs 4, 22, 62, 211, 212, 214, 237, 256 and 257 support maximising the value of recovered waste. The Draft National	The site was not considered as a potentially available site for strategic waste infrastructure at the time the Waste DPD was prepared, given its location in an operational naval base. It therefore did not undergo the rigorous site assessment analysis as part of the DPD process. As a consequence, the applicant was required to	The obligation is fairly and reasonably related to the proposed development. The level of contribution is based upon the estimated cost of procuring a delivery vehicle for supporting low carbon infrastructure (approx £0.5 million) and a contribution to the cost of delivering the necessary local carbon infrastructure connected	Taking into account the policy framework and the detailed merits and impacts of the proposal, the Local Planning Authority has placed a great importance on the low carbon energy potential of the application proposal, such that were these elements not to be provided for (including putting in place infrastructure to provide for rolling out the

	£500,000 will be paid upon signing of the Section 106 agreement, and the remainder (£1.5 million) shall be paid within 3 years of this date, in instalments on dates to be agreed. The applicant shall ensure that the Energy from Waste plant is developed in such a way as to allow for the future connection of the district energy network into the plant and it shall not unreasonably withhold any consent from a future service provider installing and connecting its infrastructure to the plant. The Council shall return any balance on the £2 million contribution within 10 years of the date of the	Planning Policy Framework echoes the Review in highlighting the importance of optimising energy recovery from waste in paragraphs 148 and 152. Overarching National Policy Statement (NPS), taken together with the overarching National Policy Statement for Energy (EN-1) and the National Policy Statement for Renewable Energy Infrastructure (EN-3), supports the recovery of energy from the combustion of waste and emphasise the importance of fully exploring CHP potential.	do an alternative sites analysis, to help determine whether this was a site which could be considered as an acceptable alternative location for strategic waste management infrastructure. This work and the Council's own analysis of the case identifies that the overriding advantage of this site over others is its ability to deliver major low carbon energy benefits immediately and with the potential for increased benefits in the future. If it were not for these benefits being provided to their maximum realistic potential, the balance of considerations would	to the plant (approx. £1.5 million) sufficient to provide for the necessary local connections. The level of contribution needs to be such that the delivery of the most low carbon energy from the plant can be realised. The applicant's documentation as part of its Regulation 19 response demonstrates the potential for the EFW plant to supply heat to a wide area, including not just the adjacent residential / mixed use communities of Barne Barton, Weston Mill and Keyham, but also to Devonport and the City Centre. The most significant potential long term benefits are likely to	provision of CHP from the dockyard to maximise the future optimisation of the plant's district energy potential) then planning permission would have been refused. The obligation is proportionate and complies with the requirements of Circular 05/05 and CIL Regulation 122.

		plant becoming operational. In the event that this balance is due to a delivery vehicle not delivering a low carbon infrastructure scheme from the plant, then the applicant shall develop and implement an alternative scheme of delivery for distributing renewable or low carbon energy within the dockyard and naval base (setting out the predicted carbon savings) with the prior written approval of the Local Planning Authority, within 3 years of this date up to the limit of the sum returned.	Planning Policy Statement Consultation: Planning for a Low Carbon Future in a Changing Climate, March 2010, identifies climate change as the greatest long term challenge facing the world today. Paragraphs 9 and 16 identifies affirms the role of planning in helping secure progress against the UK's emissions targets and makes planning for more renewable and low carbon energy development a compulsory requirement of good planning. Paragraph 11 and Policy LCF 1, 4, LCF 7.3 and LCF 13.2c of the draft	have weighed heavily against approving the planning application. The obligation is therefore justified on the basis of the merits of this case, having regard to all of the evidence and the policy framework. Furthermore, the obligation is clearly directly related to the development in that it will enable the surplus energy from the plant to be fully utilised and it will provide for delivery of the CHP benefits that are considered necessary to the grant of planning permission.	arise from the supply of low carbon energy southwards to Devonport (including industrial uses of South Yard) and then subsequently connecting to a network that links to the City Centre. A £1.5 million contribution itself is unlikely to be sufficient to meet the full costs of connecting to Devonport, via the Devonport Morice Yard Boiler House (the infrastructure works alone are estimated to cost in the region of £2.5 million, based on 2.5 kms of pipe work at roughly £1,000/m) it will provide for a proportionate contribution, should this be the preferred outcome for a future delivery vehicle.	

		PPS states that Local Planning Authorities should seek strategic opportunities for marrying up heat suppliers and consumers and supports Local Planning Authorities in expecting proposals for decentralised energy supply systems with capacity to supply new development to connect or be designed to connect to an identified system. Planning Policy Statement 1 Supplement: Planning and Climate Change, December 2007, paragraphs 13 and 27 supports opportunities for renewable and low-carbon sources of		Alternatively, the contribution would enable the delivery of a district energy network to the north or east of the applicant site if this proves to be the preferred option. The wider infrastructure would need to be delivered by another delivery vehicle (Energy Services Company - ESCo), which would be the subject of a separate procurement exercise. Many other towns and cities have delivered district energy schemes through the procurement of ESCos, including some very established schemes. The costs of procurement (£0.5 million) have been calculated on the basis	

			energy supply and supporting infrastructure, including decentralised energy supply systems, which should be maximised. Planning Policy Statement 22 Renewable Energy, August 2004, states that renewable energy resources are vital to facilitating the delivery of the Government's commitments on both climate change and renewable energy. Plymouth Core Strategy Strategic Objective 1, paragraph 1.20, Strategic Objective 11, paragraph 11.25, Policy CS20, Policy CS33, paragraph 16.8 all		of the recent costs of procurement of similar schemes in other local authorities, and would cover project management, procurement, technical advice, and legal costs including contracts. As there are a number of different commercial models, procurement is normally through a Competitive Dialogue OJEU process. It is therefore important to maintain flexibility for the final proposals to be developed through this process to achieve a viable scheme, although work has been carried out on illustrative schemes at Devonport, City Centre and Derriford, (Feasibility	

		support the provision and maximisation of low carbon infrastructure. Section 2 and Policies W7, W8, W9, W10, W11 and W12 of the Plymouth Waste DPD articulates the urgency of tackling the threat of climate change and optimising the energy from waste. Paragraphs 10.7, 10.8, 10.9 and 10.10 of the Adopted Design Supplementary Planning Document, 2009, address the issue of climate change in relation to the design of development. Paragraphs 10.19-10.25 are concerned specifically with		Study for an Energy Services Company (ESCo) in Plymouth, published in 2010). This has also been used as evidence for the policies for district energy in the adopted City Centre Area Action Plan and Pre-submission Derriford & Seaton Area Action Plan. Discussions with other public sector organisations are well advanced to develop these proposals. A soft market testing exercise was carried out earlier this year with other public sector partners and has demonstrated strong commercial interest from the marketplace. If funding is available the formal OJEU procurement	

			renewable energy, and highlight its importance to reducing carbon emissions. Paragraph 10.23 refers to the need for Energy Service Companies to be considered in relation to CHP schemes. Paragraphs. 4.27 – 4.30 of the Adopted Planning Obligations & Affordable Housing SPD, August 2010, also highlights the importance of addressing climate change.		process could be started in 2012. Should this wider scheme not be delivered, than an alternative fallback scheme has the potential to be delivered by extending improvements to the steam network to supply other parts of the Dockyard, including a number of larger uses in South Yard.	
1	2	Installation of all the proposed connections to the existing heat and power distribution network in HM Naval Base Devonport as	The policy basis is as for Obligation 1.1. In this case, the connection of the plant to these facilities is one of the means by which the use	The justification for the obligation is as for Obligation 1.1. The obligation is directly related to the development in that it	The obligation is both fair and reasonable given that it covers what needs to be done and no more in relation to the supply of energy to	The conclusion is the same as for Obligation 1.1. The obligation complies with the requirements of Circular 05/05 and CIL

		indicated in the approved plans concurrent with the construction of the EFW CHP facility and thereafter continually supply energy in the form of renewable heat and electricity generated from the EFW CHP facility unless Energy Service Agreements are terminated. Prior to the commencement of operations, installation of the main heat and power connections shall be provided so that the Help for Heroes swimming pool and Fleet Accommodation Centre within North Yard are able to receive heat from the EFW plant.	of renewable energy will be achieved.	will deliver energy directly from the plant and the development should not be permitted without the connections being secured.	these facilities, thus contributing to the objective of maximising the renewable energy from the plant.	Regulation 122.

1	3	Within 12 months of signing the Section 106 agreement a local employment and training scheme shall be submitted to, and approved in writing by, the Local Planning Authority. The scheme shall detail arrangements and mechanisms for ensuring that contractors provide opportunities for the training of local apprentices and for securing the use of local labour, contractors and goods and services during the construction and operation of the project to comprise:	Core Strategy Strategic Objective 6 seeks the development of Plymouth's skills base and promotion of economic inclusion through supporting investment in learning infrastructure and promoting local labour and training on major construction projects. Core Strategy Policy CS04 provides for local labour agreements with developers to enable local people to be employed in deprived communities (Keyham neighbourhood is ranked 14th out of Plymouth's 43 neighbourhoods). Core Strategy Policy CS33 and paragraph 16.8	The development is a major project within a deprived area of the city. It is important that such developments make a positive contribution to the economic well-being of these areas, and the policy framework clearly provides for this. The obligation is directly related to the development because the employment will be in the construction and operation of the development itself.	The obligation is fairly and reasonably related in scale and kind to the project, given the policy and socio-economic context because it is necessary to meet the requirements of the Core Strategy and Local Economic Strategy and to contribute towards mitigating the well being impacts of the development on the local community. The scale of the contribution is proportionate having regard to the impacts of the development.	The obligation contains measures that are necessary to the grant of planning permission, are directly related to the development and fair and reasonable in relation to it. The obligation complies with the requirements of Circular 05/05 and CIL Regulation 122.

		At least one apprenticeship during the construction phase to be sponsored by MVV O&M GmbH and its principal subcontractors on contracts with a value of £20 Million or above to allow one of the sub-contractors to provide the apprenticeship opportunity, and subject to the agreement of the companies to be included and any consents required under this clause not to be unreasonably withheld. During the construction phase the applicant shall use reasonable endeavours to ensure	provides for the seeking of planning obligations to make a positive contribution to creating a city of sustain able linked communities. Planning Obligations & Affordable Housing SPD, paragraphs 4.20 – 4.26 provide amplification of the context and justification for seeking local economic and employment benefits from major developments. The Local Economic Strategy, October 2006 contains provisions to support to support local employment and training initiatives.			

	that 70% of the workforce is sourced locally from the Plymouth local authority administrative area and from a location falling within the PL post code area. Concurrent with the operation of the plant, the applicant will provide sponsorship of 5 apprenticeships, or such other appropriate comparable systems of training per annum from those within waste, engineering and related industries during the operational life of the EFW CHP facility to £15,000 per annum.				

		The applicant will use reasonable endeavours to maintain regular links with the University of Plymouth and City College Plymouth such that concurrently with the operation of the plant, internships shall be provided to students on relevant courses to provide six weeks of work experience. The applicant will use reasonable endeavours to maintain links with the local Secondary School to facilitate work experience opportunities and bursary/sponsorships for attending university on a				

		related waste/engineering course, up to £5,000 per annum. The applicant will use reasonable endeavours to maintain links with HM Naval Base to facilitate 6-week work experience placements for naval engineers. Following the date upon which this agreement is signed, all externally advertised posts, whether part of the construction phase or the operational phases, will first be advertised in local media and placed on the dedicated				

		community web site to allow the take up of job opportunities in connection with the EFW plant. The applicant will use reasonable endeavours to contract locally sourced goods and services from the Plymouth local authority administrative area and from a location falling within the PL post code area by advertising contracts and services in local media and placed on the dedicated community web site.				
Schedule 2: Transport						

2	1	The applicant shall contribute 10% of the total cost or £100,000 (whichever is the greater; up to a maximum of £150,000) towards future improvements to the junction of Ferndale Road/ Carlton Terrace with Weston Mill Drive. The £100,000 to be paid on signature of the agreement with the balance paid no later than 3 months before the commencement of works associated with the construction of the Weston Mill retail development set out in Plymouth Core Strategy Policy CS07(2), and shall be held for a period	The obligation is supported by Adopted Core Strategy Policy Strategic Objective 14, and Policies CS 28, CS33 and CS34 to provide facilities to support proactive measures to support infrastructure provision and sustainable transport modes. Waste DPD Policies.W7 and W8 also support the provision of adequate transport infrastructure.	In the future assessment year (2014 Do Something plus Potential Development Scenario) MVV have forecast that the EFW plant would generate 4.8% of the additional movements taking place through this junction during the pm peak hour of 4-5pm. However this figure has been based upon assumptions made in respect of the amount of traffic the proposed Supermarket would generate (this use was expected to generate 84.3% of the extra movements based upon assumed floor areas, trip rates etc.)	The estimated cost of a new junction at this location to address the impacts from developments including the MVV proposal is circa £1 million. MVV will therefore be required to contribute 10% towards the cost of this junction or £100,000 (whichever is greater). This reflects an estimate of the proportionate effect of the development on the operation of the junction. In the event the Weston Mill retail development proposed under Policy CS07(2) does not come forward then no contribution from MVV will be required.	The mitigation measures are directly related to the transport impacts of the development. The obligation is fair and reasonable because the calculation is based on the development impact of the proposal. The obligation complies with the requirements of Circular 05/05 and CIL Regulation 122.

		of 10 years following receipt of the sum.		Assuming that the 'worst case maximum scenario' occurs, the impact of the EFW traffic at this junction would be 14.8% of the total development traffic. Due to the fact that the 4.8% figure is based upon various assumptions regarding the traffic impacts of the other uses, the impact of the EFW facility should be considered to be somewhere between 4.8% and 14.8% (the mean value being 9.8%; rounded-up to 10%). Estimated cost of a new junction at this location to address the increase in traffic movements arising from the Supermarket development is circa £1		

				million. MVV will therefore be required to contribute 10% towards the cost of this junction or £100,000 (whichever is greater). The potential difference between the £100,000 and the £150,000 should be paid within 3 months of the start of the junction improvements so that this funding can be factored into the costs associated with the construction of the junction.		
2	2	A comprehensive Travel Plan (TP) shall be prepared in accordance with details that shall be submitted to and approved in writing by	The policy basis for the obligation is provided by Core Strategy Strategic Objective 14. As such they are supported by Adopted Core Strategy	The obligation covers the measures that the local highways authority have determined are necessary to satisfy the transport impacts of the	The provisions are fair and reasonable in relation to the impacts of the development and are comparable to requirements sought to	The obligation is fair and reasonable because the calculation is based on the development impact of the proposal. The obligation complies

	both the Local Planning Authority and Highways Agency 6 months prior to the commencement of the use of the facility. The TP shall include measures that encourage the use of sustainable modes of travel for staff and visitor-related journeys being made to and from the site and shall be implemented upon the commencement of the operation of the EFW plant. The applicant will be required to deposit the sum of £14,000 within a dedicated MVV TP account which shall be used to fund measures/initiatives that support the delivery of the agreed TP (including subsidised travel passes	Policies CS28, CS33 and CS34 and Waste DPD policies.W7and W8.	development and deliver the policy requirements of the development. It directly addresses transport impacts of the proposal.	address such matters in similar developments. When considering the use of modes of transport other than the private car for journeys being made to and from places of employment, the most viable alternative is often public transport, as indicated within the application Transport Assessment which includes staff incentives to encourage the use of public transport, those incentives being discount vouchers for bus travel. As the plant operates on a shift-working basis and bus services reduce in number and frequency after 7.00pm, the use of public transport is most	with the requirements of Circular 05/05 and CIL Regulation 122.

		for a period of one year). Expenditure from such an account shall be subject to a 6-monthly audit by Plymouth City Council in consultation with the Highways Agency.			likely to appeal to staff working daytime shifts at the plant. With a total of 25 staff arrivals during 'office hours' and the cost of a Plymouth Zone Travel Pass being £560, the cost of providing subsidised bus travel for each daytime member of staff for 1 year would be £14,000.00 and this is the sum being sought through the Obligation.	
2	3	A comprehensive Construction Workers Travel Plan (CWTP) shall be prepared in accordance with details that shall be submitted to and approved in writing by both the Local Planning Authority and	The policy basis for the obligation is provided by Core Strategy Strategic Objective 14. As such they are supported by Adopted Core Strategy Policies CS28 & CS33 and Waste DPD policies W7 & W8.	The obligation covers the measures that the local highways authority have determined are necessary to satisfy the transport impacts of the development and deliver the policy requirements of the development. It	The provisions are fair and reasonable in relation to the impacts of the development. The local highways authority base the sum upon a price of £40 per employee per year, a 3 year build programme	The obligation is fair and reasonable because the calculation is based on the development impact of the proposal. The obligation complies with the requirements of Circular 05/05 and CIL

	Highways Agency no less than 6 weeks prior to the commencement of the main on-site construction works. The CWTP shall include measures that encourage construction staff to use sustainable modes of travel for journeys being made both to the site and associated off-site car parking areas (Goschen Yard) and shall include the provision of shuttle bus services which includes pick-up points from various residential areas throughout the City. The CWTP shall come into operation upon the commencement of the construction works and the applicant will be		directly addresses transport impacts of the proposal.	and an average of 160 workers on-site throughout the build programme: 160 x 40 x 3 = £19,200.	Regulation 122.

		required to deposit the sum of £19,200 within a dedicated MVV CWTP account which shall be used to fund measures/initiatives that support the delivery of the agreed CWTP (including subsidised travel passes). Expenditure from such an account shall be subject to a 6-monthly audit by Plymouth City Council in consultation with the Highways Agency.				
2	4	The operation of the EFW plant shall not commence until the applicant has submitted to, and had approved in writing by the Local	The policy basis for the obligation is provided by Core Strategy Strategic Objective 14. As such they are supported by Adopted Core Strategy	The obligation contains measures that the local highway authority has determined as necessary to mitigate transport impacts based	The provisions are fair and reasonable in relation to the impacts of the development as a Plant Operation Method Statement is the most	The obligation is fair and reasonable because the calculation is based on the development impact of the proposal. The obligation complies

		Planning Authority (in consultation with the Secretary of State for Transport) details of a Plant Operation Method Statement that will include (but not be limited to) details of the financial regime that will apply to commercial and industrial waste arrivals of 6 tonnes in weight or less being made to the plant. Such a regime will operate on a sliding scale of charges and should also include reference to financial disincentives that will encourage commercial and industrial waste operators to deliver commercial and industrial waste outside the 'peak' hours of plant operation (those peak	Policies CS28, CS33 and CS34 and Waste DPD policies W7 & W8.	upon data in the submitted Transport Assessment with regard to the assessed commercial and industrial waste movements. The obligation directly addresses transport impacts of the proposal as set out in the Planning Application Transport Assessment.	appropriate and effective way to control commercial and industrial waste movements.	with the requirements of Circular 05/05 and CIL Regulation 122.

		periods being from 10.00am to 11.00am and 2.00pm to 3.00pm) or such hours as may be agreed in writing by the Local Planning Authority.				
Schedule 3: Landscape & Biodiversity						
3	1	Within 6 months of the commencement of the main constructional works of the EFW CHP facility to submit for approval to the Local Planning Authority a scheme of management and maintenance in respect of the Open Green Space adjacent to Savage Road as shown on the Drawings [to be defined as the land	Core Strategy Strategic Objective SO11 and Policies CS18, CS19, CS33 & CS34, as well as Waste DPD policies W7 & W8 all support appropriate landscaping and environmental mitigation. Paragraph 4.44 of Planning Obligations & Affordable Housing supports commuted	This obligation is necessary to help address amenity and well-being impacts of the development. The landscaping scheme proposed is clearly directly related to the development.	The provisions for landscaping are based upon the details submitted with the planning application for the treatment of this land and are necessary to the grant of planning permission.	The obligation is fair and reasonable because it is proportionate to the impacts of the development. The obligation complies with the requirements of Circular 05/05 and CIL Regulation 122.

	edged green on Plan 1] setting out the details of all maintenance operations, their frequency and timing, and once approved in writing, to thereafter implement this scheme throughout the 25 years (or the operational life of the facility whichever is the greater) irrespective of its tenure. And in the same time period to submit a leasehold agreement for 25 years (or the operational life of the facility whichever is the greater) for the same land for dedication to the Council [or such other body as may be agreed in writing by the Local Planning Authority]. Within 3 years of the commencement of the	maintenance provisions.			

		main constructional works of the EFW CHP facility to conclude its reasonable endeavours to secure this land freehold, free of any acquisition costs, for dedication to the Council or such other body as may be agreed in writing by the Local Planning Authority and on transfer pay a commuted sum for maintenance of £96,000 in full. The Council [or such other approved body] shall be obliged to neither use nor permit to be used the Open Green Space other than as amenity areas for the use of the public in accordance with drawing no PA17 (revision (P) [MVV's Landscape				

		Master Plan].				
3	2	A sum to not exceed £390,000 shall be paid prior to the commencement of the main constructional works to mitigate visual impacts brought about by EFW CHP facility upon the local community and surrounding landscape and to enhance local amenity and recreational community facilities at Barne Barton in accordance with Plan 2. The landscaping measures shall include the planting of vegetation and trees within the approved zone of visual influence	Core Strategy Strategic Objective SO11 and Policies CS18, CS19, CS33 & CS34, as well as Waste DPD policies W7 & W8 all support appropriate landscaping and environmental mitigation. Paragraph 4.44 of Planning Obligations & Affordable Housing supports commuted maintenance provisions.	This obligation is necessary to help address amenity and well-being impacts of the development. The landscaping scheme proposed is clearly directly related to the development.	The provisions for landscaping are based upon a detailed elemental costing analysis of each area of land that is to be enhanced in close proximity to the site.	The obligation is fair and reasonable because the calculation has is based on the development impact of the proposal. The obligation complies with the requirements of Circular 05/05 and CIL Regulation 122.

		(submitted drawing figure 8.8.3 in the Environmental Statement) and provision of general amenity and recreational amenity facilities within Barne Barton. This sum is to include the maintenance of the delivered measures for a minimum of 25 years. Within 12 months of the date of this agreement the applicant, in consultation with the North Yard Community Trust and the Local Planning Authority, shall draw up a scheme of landscape mitigating measures referred to in clause 9 above including its phasing and timing for submission and approval by the Local Planning				

		Authority.				
3	3	Prior to the commencement of the main constructional works of the EFW CHP facility, the developer is to submit for approval by the Local Planning Authority an Ecological Mitigation, Enhancement and Management Plan (EMEMP) for the site, including Blackie's Wood, which shall include a scheme for controlled public access. The developer shall implement the approved scheme from the commencement of the main construction works, maintaining it post construction for a period	The proposed Mitigation and Enhancement Strategy for the site does not achieve net biodiversity gain as required by Policy CS19.	The obligation will satisfy the requirements of Policy CS19 by providing for in the order of 1.2 hectares of new habitat to be created (at a total cost of £100,000), together with provision for enhanced management for wildlife in the order of 0.6 hectares of habitat (at a total cost of £6,000 per annum for a 25 year period). This is a fair and reasonable response to the policy requirements of CS19. The Local Planning Authority has identified	The costs have been calculated on the basis of unit costs identified from CAGE Space data to inform the Planning Obligations & Affordable Housing SPD. The cost formula used is: £8.3/m2 for provision of Local Nature Reserve given in the following document: http://www.plymouth.gov.uk/planning_obligations_evidence_document.pdf	The obligation is necessary to the grant of permission, directly related to the development and is fair and reasonable given the nature and scale of the development proposal. The obligation complies with the requirements of Circular 05/05 and CIL Regulation 122.

	no less than 25 years or for the operational life of the EFW CHP facility whichever is greater. The area of land subject to this scheme is defined on Plan 1. The EMEMP scheme shall include detailed mitigation and enhancement works for their completion relative to the EFW CHP construction timescales to ensure that the agreed mitigation works are completed in advance of when the impacts occur. The scheme shall also include detailed management specifications to include maps of the areas showing the works to be undertaken, setting out construction and		12 areas of green space, each 2.6km or closer, in the general locality of the development which are in City Council or MoD ownership, and which therefore provide genuine delivery options for the implementation of this biodiversity gain. Community engagement will take place in order to determine the preferred option(s) for investment. The obligation is justified on the basis of the requirements of the policy framework to deliver a net gain in biodiversity.	£0.95/m2 for maintenance of Local Nature Reserve quoted in the following: http://www.plymouth.gov.uk/adopted_spd_planning_obligations.pdf	

	operational periods. Biodiversity gain shall be achieved through the provision of off-site biodiversity enhancements at local sites of wildlife interest in accordance with Plymouth City Council's Core Strategy Policy CS19 in order to facilitate improvements and enhancement works to the agreed sites, including improved access and interpretation, habitat creation/enhancement and ongoing maintenance of newly created/enhanced habitats. The selected sites would be local to the EFW CHP facility site and set out on the				

		attached Biodiversity Gain Plan (Plan 3) and will complement Plymouth City Council's Green Infrastructure (GI) Delivery Plan. A sum of not to exceed £250,000 over a period of 25 years shall be made available by the applicant, to be paid in instalments as follows: £100,000 prior to the commencement of development, with further annual payments of £6,000 per annum.				
Schedule 4: Environmental Mitigation and Monitoring						
4	1	A Noise Management Plan shall be submitted to and approved in writing by the Local	The policy basis for the obligation is provided by Core Strategy Policies CS22, CS33 and CS34	The obligation is necessary to ensure that the plant operates in accordance with the	The obligation is fair and reasonable as it will ensure that the development complies	The obligation is necessary to the grant of permission, directly related to the

	Planning Authority prior to the commencement of the main constructional works of the construction phase, commissioning phase, operation phase and restart phase. The Noise Management Plan shall include the required location of specified receptors for each stage, the location of monitoring website stations, the meeting arrangements for the Monitoring Steering Group, and the reasonable funding arrangements to be paid by the applicants over a 25 year period from commencement of development. The collected data to be analysed	and Waste DPD Policies W7 and W8.	details submitted and parameters established as part of the Environmental Statement. Without it the Public Protection Service would be likely to recommend refusal of the application due to inadequate noise mitigation measures. Effective noise quality management is a clear requirement for planning permission to be granted irrespective of the separate controls afforded by the Environmental Permit. The obligation directly addresses noise impact issues associated with the construction of the EFW facility.	with relevant standards and the applicant's own noise assessment. Without it the Public Protection Service would be likely to recommend refusal of the application due to inadequate noise mitigation measures.	development and fair and reasonable. The obligation complies with the requirements of Circular 05/05 and CIL Regulation 122.

	and reviewed regularly by a Monitoring Steering Group (operator and regulators). Such review shall include a comparison between actual and predicted levels and, in the event of a breach attributable to the EFW CHP plant (i.e. the predicted levels being exceeded), the appropriate measures to be taken by the operator to regularise emissions and reduce risk of further events; reduce impacts on the receptors affected;. (Such arrangements cannot affect the discretion of the EA or Local Planning Authority to exercise statutory responsibilities and enforcement powers). To carry out				

		monitoring of noise levels at specified receptors, to be agreed with the Local Planning Authority for the life of the operation of the EFW facility, and to compare the noise level from the plant at that location with the predicted noise level from that location using the model relied upon in the applicants submission to the Local Planning Authority, and if the actual noise exceeds the predicted noise levels, to take appropriate measures within agreed timescales, as agreed between the operator and the Local Planning Authority, and any third party if applicable, to reduce the impact on				

		those receptors to the predicted noise level, unless the monitoring of the plant demonstrates for a continuous period of 5 years that no incidents exceeding those levels occur in which case monitoring will cease, or if there is an no incidents exceeding those levels then a further 5 year monitoring shall take place.				
4	2	The applicant shall provide a financial contribution of £68,000 towards the provision of low noise surfacing at both the junction of Wolseley Road with Weston Mill Drive and on	The policy basis for the obligation is provided by Core Strategy Policies CS22, CS28, CS32, CS 33 and CS34 and Waste DPD Policies W7 and W8. The objectives for the management of	The obligation is necessary to ensure that the plant operates in accordance with the details submitted and parameters established as part of the Environmental	The applicant's traffic noise impact assessment identifies that traffic generated by the development will result in a change in the Basic Noise Level (BNL) for the roads in the	The obligation is fair and reasonable because the calculation is based on the development impact of the proposal. The obligation complies with the requirements of Circular 05/05 and CIL

		Weston Mill Drive up to and including its junction with Ferndale Road/Carlton Terrace. The contribution shall be secured upon commencement of the development and shall be held for a period of 5 years following receipt of the sum.	transport and air-related noise and pollution are also included in the Local Transport Plan 2011-2026	Statement. Effective noise quality management is a clear requirement for planning permission to be granted irrespective of the separate controls afforded by the Environmental Permit. The immediate public highway network including Camels Head junction, Weston Mill Drive and Wolseley Road that development traffic will use to access the EFW facility has been identified as exhibiting high traffic noise levels by DEFRA. This has been supported by local noise monitoring in the area where average noise levels ranged from 71.9dB to 75.5dB. Sensitive	immediate vicinity of between 0.3dB to 1.6dB. The noise is already at levels which require intervention and so even very small increases are likely to have a disproportionate effect. The need for Local Planning and Highway Authorities to minimise the impact of noise within their areas has been afforded increased priority by the DEFRA Noise Action Planning process. This has been further supported by the importance placed on the issue within the Council's Local Transport Plan adopted in 2011.	Regulation 122.

				receptors including residential housing and a primary school are in close proximity to the highway with some within 10 metres of the roadside.	Using the criteria to assess if a property could be eligible for improved noise insulation or compensation through the Noise Insulation Regulations (NIR) 1975 (as amended 1988), as the basis to determine if mitigation of noise impacts should be considered for proposed development: Where existing traffic noise levels are recorded as greater than 68dB L_{A10,18h} Where an increase in traffic noise levels is being predicted of more	

					than 1dB and where the 1dB increase or more is related to a change in the highway All three criteria are met, with the increased traffic levels generated by the proposed development considered in this instance as the change in the highway. Mitigation of the noise impacts is therefore considered necessary. However, it is recognised that the greatest change in noise level (1.6dB) has been predicted for a section of road that is not as close	

					to the sensitive receptors as other roads in the area. For this reason it is considered fair and reasonable that the applicants for the EFW plant contribute 50% of the estimated cost (£68,000) and not the whole costs of providing new road surfacing with improved traffic noise reduction properties for the road system serving the development, and in particular for Weston Mill Drive and the Camels Head junction. The 50% figure mentioned above has been based upon the % impact (comparing the 2014 Do Minimum with 2014 Do Something) in terms of numbers of Heavy Goods Vehicles passing	

					through the junctions of Weston Mill Drive/Ferndale Road/Carlton Terrace and Weston Mill Drive/Wolseley Road over a 12 hour period (Heavy Goods Vehicles being the greatest generator of traffic noise). Ferndale Road/Weston Mill Drive/Carlton Terrace (38.77% impact over a 12 hour period) Wolseley Road/Weston Mill Drive (53.16% impact over a 12 hour period)	

					Combined impact of 91.93% (rounded-up to 92%) and divided by 2 = 46% (rounded-up to 50%).	
4	3	An Air Quality Management Plan shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of the main constructional works. This plan will make provision for: Installation of 10 NO₂ tubes in the vicinity of the Camels Head Junction and at St Budeaux/Kings	The policy basis for the obligation is provided by Core Strategy Policies CS22, CS33 and CS34 and Waste DPD Policies W7 and W8.	The obligation is necessary because effective air quality management is a clear requirement for planning permission to be granted irrespective of the separate controls afforded by the Environmental Permit. The obligation relates to environmental impacts arising directly from the operation of the plant and is therefore directly related to the	The obligation is fair and reasonable as without it the Public Protection Service would be likely to recommend refusal of the application due to inadequate provision for air quality management.	The obligation is fair and reasonable because the calculation is based on the development impact of the proposal and is proportionate. The obligation complies with the requirements of Circular 05/05 and CIL Regulation 122.

	Tamerton, at a cost not to exceed £1,000 per annum for a 10 year period from the commencement of operations in order to contribute to local ambient air quality monitoring. Installation, commissioning and operating air quality monitoring equipment for specific targeted monitoring of PM₁₀ at Camels Head Junction, at a cost not to exceed £65,000 for a 5 year period from the commencement of commissioning in order to contribute to local ambient air quality monitoring.		development. The obligation is fair and reasonable as the levels of monitoring are over and above normal service monitoring levels and which therefore require the dedication of additional monitoring resources which have been calculated by reference to an estimate of the likely number of investigations into complaints required.		

	Upon signing this agreement provide funding for air quality measures for the playground at Weston Mill School, at a cost not to exceed £5,000, with it expressly agreed that if this sum is not used before commencement of operations that it is returned to the applicant In respect of items 1 and 3 above, until the end of the first year of operation: Making timely payments for site investigations and handling of justified and valid complaints/enquiries associated with the construction and				

		commissioning phase, on a cost per case basis of £200. Making timely payments for attendance at local liaison meetings during construction and commissioning phases, on a cost per meeting basis of £200, such overall sum not to exceed £5,000.				
4	4	Upon signing of this agreement a sum not to exceed £1,000 shall be paid to enable the establishment of computer facilities and access to a dedicated community web site at the Tamar View	The policy basis for the obligation is provided by Core Strategy Policies CS22, CS33, CS34 and Waste DPD Policies W7 and W8. In addition, the	The obligation is necessary in order to ensure that the well-being of the community is adequately addressed through the provision of comprehensive and timely environmental monitoring and that the	The cost of setting up a computer station, computer equipment and a web connection at the nearby community centre has been estimated at £1,000.	The obligation is fair and reasonable because the calculation is based on the development impact of the proposal and is proportionate. The obligation complies with the requirements of

	Community Centre or alternative venue to be agreed in writing by the Local Planning Authority to enable monitoring data on the emissions from the EFW CHP facility to be provided by the applicant in a format to be agreed in consultation with the North Yard Community Trust prior to the commencement of plant operations. A detailed scheme of monitoring the reduction in Dockyard energy usage and carbon emissions resulting from the supply of heat and electricity by the EFW CHP facility as set out in the Energy, Economy, Employment and Education Benefits Statement Section C4	<i>Government Review of Waste Policy in England, 2011</i> recognises that waste infrastructure is of national importance and acknowledges that this will result in the need for difficult decisions to be taken at a local level (Paragraph 265). However, it also acknowledges that community acceptance of such facilities needs to be sought, and that good communication, information and awareness raising is a key aspect to this. Paragraphs 231 – 233 address this issue directly.	community most directly affected by the plant have ready access to the monitoring data and an involvement in the operation of the plant developed through an understanding of its processes and operations. This accords with Core Strategy Policies CS22, CS33, CS34 and Waste DPD Policies W7 and W8. The obligation relates to the monitoring of noise, air and other environmental operating information concerning the plant and is therefore directly related to the development. The obligation is fair and		Circular 05/05 and CIL Regulation 122.

	(as updated September 2011) shall be submitted to, and agreed in writing by, the Local Planning Authority prior to the commencement of the commissioning phase and once agreed in accordance with the continuous improvement programme, shall be provided on the dedicated community web site on an annual basis. Before the EFW CHP facility becomes operational the applicant is to submit to the Local Planning Authority for approval a scheme of interpretation. This scheme shall set out how the developer intends to make available to the public, information in respect of		reasonable as in the interests of community well-being it is appropriate that up to date and regular access to monitoring data associated with the operation of the plant is available to the local community, a deprived area, where computer access and ownership is low and are most directly impacted by the proposal.		

	the EFW CHP facility's process and operation including the sites landscape, biodiversity and marine interests and historic assets within the site and adjacent dockyard. Such a scheme will include the provision of on site interpretation panels, provision of information leaflets and presentation material, provision of regular newsletters and engagement through the dedicated community website. The scheme of interpretation will also outline the use and availability of the on-site visitor room and viewing area located above the Administration Block setting out conditions of use, hours of availability				

		and available facilities.				
Schedule 5: North Yard Community Trust						
5	1	Detailed arrangements for the formation of a North Yard Community Trust to oversee the management of a community fund over the next 25 years shall be agreed with the Local Planning Authority prior to the commencement of the main constructional works. Such detailed arrangements shall include the membership, governance and meeting arrangements. Funding arrangements to be paid by the applicants over a 25 year period from	Paragraphs 264 and 265 of the <i>Government Review of Waste Policy in England, 2011</i> recognise that waste infrastructure is of national importance and acknowledges that this will result in the need for difficult decisions to be taken at a local level. The Review therefore acknowledges the important of seeking community acceptance of proposals, and applying the principle that those most impacted should benefit	The obligation is necessary to ensure an appropriate delivery mechanism is in place to address the community well-being impacts of the development. The obligation is directly related to the development in that it is needed to address the impacts of the development. The obligation is fair and reasonable in that a community mechanism	The obligation provides the necessary governance arrangements to enable the local community most directly affected by the proposal to manage a fund that will enable wider community impact issues arising from the development, being in such close proximity to residential properties, to be addressed through appropriate community well-being initiatives and projects.	The proposal can be made acceptable in overall terms provided that it both provides for both the maximum energy generation from its waste and the mean to address the community well-being impacts through a Community Trust. The obligation is fair and reasonable because it responds directly to the need arising from the development and is the minimum required to do so. The obligation complies with the

		commencement of development. Trust members will include the principal parties to this legal agreement, Ward Councillors, other bodies, and representatives of local residents. The applicant hereby agrees to provide and make available an appropriate venue for the meetings of the North Yard Community Trust and appropriate meeting resources to enable the trust to fulfil the agreed terms of reference.	the most. Furthermore, the achievement of this principle needs to be part of an ongoing dialogue between communities, local authorities and waste management companies – a Community Trust will provide such a mechanism. The Draft National Planning Policy Framework, July 2011, includes specific reference to the need for planning authorities to approve applications for renewable or local carbon energy where the impacts are, or can be, made acceptable. Core Strategy Strategic Objective 15 Policies	is needed in order to administer the community fund.		requirements of Circular 05/05 and CIL Regulation 122.

			CS01, CS33 and paragraph 16.8 of the Core Strategy provides for mitigation of the community impacts of development – including provision for a range of community initiatives to support the development of sustainable linked communities and community well being. Policies W7 and W8 of the adopted Waste DPD resists development that has unacceptable direct or indirect impacts on residential amenity.			
5	2	A Community Fund for community well-being initiatives and projects of £150,000 per annum is to be established for the	Paragraphs 264 and 265 of the <i>Government Review of Waste Policy in England, 2011</i> recognise that waste	The obligation is necessary to address the well-being impacts upon a deprived community of Plymouth	There is the potential for indirect effects on the health of some of the local population, resulting from the risk of	The proposal can be made acceptable in overall terms provided that it maximises energy generation from its

	duration of 25 years or such shorter period and/or such smaller amount if the North Yard Community Trust agrees that contributions warrant suspension in the neighbourhood of the plant as any community well being impacts have been adequately addressed. (This amount will be adjusted annually according to the retail price index).	infrastructure is of national importance and acknowledges that this will result in the need for difficult decisions to be taken at a local level. The Review therefore acknowledges the important of seeking community acceptance of proposals, and applying the principle that those most impacted should benefit the most. The Draft National Planning Policy Framework, July 2011, includes specific reference to the need for planning authorities to approve applications for renewable or local carbon energy where the impacts are, or can be,	which is being expected to host infrastructure of acknowledged regional and national importance. The applicant has identified in their EIA well-being factors that the National Mental Health Development Unit (NMH DU, 2010) have identified as being key local impact mitigation requirements: enhancing control; increasing resilience and community assets; facilitating participation; and promoting inclusion. The community fund will enable initiatives to be funded which provide a positive counter to the negative foreseen and	exacerbating the multiple deprivations in the local area which the proposal is regarded by many local residents as posing. This would be likely to be manifested by increased stress and depression. The impacts during the construction period, although temporary, will be experienced for a lengthy period and are likely to have an impact which requires mitigation beyond the adoption of a construction management plan. Other impacts capable of bearing on the health and well being of the local population e.g. noise at the limits of what is acceptable will be permanent. Indirect	waste <u>and</u> the means to address the community well-being impacts through a Community Fund. The obligation is directly related to the development because it allows the local community to use the funds on specified areas of activity that will, individually or collectively, deal with impacts of the proposal on resident well-being within the Barne Barton area. The obligation is fair and reasonable because the sum is proportionate to the identified impacts. The obligation complies with the requirements of Circular 05/05 and CIL Regulation 122.

			made acceptable. Core Strategy Strategic Objective 15 Policies CS01, CS33 and Paragraph 16.8 of the Core Strategy provides for mitigation of the community impacts of development – including provision for a range of community initiatives to support the development of sustainable linked communities and community well being. Policies W7 and W8 of the adopted Waste DPD resists development that has unacceptable direct or indirect impacts on residential amenity.	unforeseen well-being impacts of the development. A substantial evidence base exists to highlight the importance of delivering positive benefits to this community from hosting a project of this nature, including for example Community Planning Studies, Sustainable Neighbourhood Assessments, local housing needs studies, playing pitch and sports facilities studies, education plans and other documents relating to the needs of specific neighbourhoods of the city. The PCT has also given examples of appropriate evidence based interventions	effects of this kind on wellbeing and wellness are not readily quantifiable by reference to any formula. There is a need to ensure that mitigation is in place for these indirect effects and this will be secured through the Community Fund which will be a fund administered by the proposed Community Trust. The level of contribution of the fund must be of a sufficient scale to deliver a real impact on the sense of community well-being in this deprived area. Given the scale of the proposal, the size of the potentially affected area and the costs of likely projects, a pool of £150,000 per annum is a	

				which would assist in mitigating these impacts. The Community Fund will be set up for the benefit of the people living within the vicinity of the EFW. An annual sum will be provided to the Community Fund to enable it to develop and invest in relevant community projects and services in response to foreseen and unforeseen impacts associated with the development.	fair and reasonable contribution. Subject to this contribution, the proposal would be acceptable on wellbeing grounds when seen in the context of other benefits to the locality. The contribution of £150,000 per annum is considered sufficient to make a positive impact, it is in proportion to the nature and scale of the development, and the principle of this type of arrangement has been endorsed by the Secretary of State in the Cornwall EFW case.	
Schedule 6: North Yard Visitor Centre						

6	1	Prior to the completion of the North Yard Visitor Centre, the applicant shall agree in writing with the Local Planning Authority, in liaison with the North Yard Community Trust, a programme of educational activities relating to waste reduction and recycling and energy initiatives in the locality on an annual basis in accordance with Schedule 1. Upon signing of this agreement recruitment of a full time Community Liaison Manager shall be in post within 3 months, such a post to be employed by the applicant and based at the North Yard Visitor Centre to, amongst other	Paragraphs 231 – 233 and 265 of the <i>Government Review of Waste Policy in England, 2011</i> recognises that waste infrastructure is of national importance and acknowledges that this will result in the need for difficult decisions to be taken at a local level. However, it also acknowledges that community acceptance of such facilities needs to be sought, and that good communication, information and awareness raising is a key aspect to this. Strategic Objective 15 and Policies CS01 and CS33 and Paragraph 16.8 of the Core Strategy provide for	The obligation is justified to help achieve community understanding and acceptance of the facility. It is directly related to the impacts of the development as the visitor facility forms part of the proposals to develop the site and ensuring that there is a clear programme for the use of the facility in liaison with the community most directly affected.	The obligation is directly related to the development because it will promote greater local understanding and acceptance of the proposed plant in the interests of community well being.	The proposal can be made acceptable in overall terms provided that it maximises energy generation from its waste <u>and</u> the means to address the community well-being impacts through a Community Fund. The obligation is fair and reasonable because the calculation is based on the development impact of the proposal. The obligation complies with the requirements of Circular 05/05 and CIL Regulation 122.

		things, oversee delivery of the agreed programme of activities and meetings. Subject to operational requirements and no public right of way being established or any right of access being claimed, the Visitor Centre shall, subject to the conditions of use, be made available for accommodating visits by educational, local authority and community groups, and visitors to Blackies Wood for the operational life of the project in accordance with the programme.	mitigation of the community impacts of development – including provision for a range of community initiatives and support sustainable linked communities, including amongst other things contributing to a positive sense of place and identity. Policies W7 and W8 of the Waste DPD resist development that has unacceptable direct or indirect impacts on residential amenity (the proposed planning obligation helps make an impact which would otherwise be unacceptable, acceptable)			

Schedule 7: Section 106 Management and Monitoring						
7	1	A fee in order to provide the Council the necessary resources required to efficiently implement contributions pursuant to Section 106 obligations and to administer monitor maintain and implement such obligations Obligations on the part of the Developer The Developer hereby covenants with the Council so as to bind the Site and successors in	The policy basis for the obligation is provided by Policy CS 33 of the Core Strategy and the provisions of paragraph 6.20 and 6.21 of the Planning Obligations and Affordable Housing SPD First Review.	The obligation is necessary to the grant of permission as it will provide the Council with the means to prepare the obligations themselves and to monitor and implement the Section 106 agreement. It is directly related in that the costs relate specifically to this Section 106 agreement only and to reflect the complexity of the range of obligations and the future resources necessary to monitor them. A sum is required to support the Community Trust to	The obligation is fair and reasonable in that it is calculated on the basis of a formula which estimates the costs of monitoring and implementation of Section 106 agreements, together with an estimate of the costs relate to providing the establishment, administration and management of the Community Trust.	The obligation is necessary to the grant of permission, directly related to the development and fair and reasonable. The obligation therefore complies with the requirements of Circular 05/05 and CIL Regulation 122.

		title that the Developer shall pay to the Council upon signing the agreement: The Management Fee of £24,210. A sum not to exceed £10,000 per annum for a period of 5 years from commencement of development in order to support the management, administration and establishment of the North Yard Community Trust.		ensure that it is equipped with the skills and administrative support in the formative period of the development that ensures that the resources are available to establish appropriate processes for the management of the community fund in a manner that is accessible to the community most directly impacted by the development.		

APPENDIX 2

Analysis of Letters of Representation

The following is a break down of letters of representation received by topic and showing the address details of the correspondents. Not all correspondents to Planning Services gave their full address details. The topics are ranked by the number of times that they have been referred to by letter writers. At the end of the section is a map (Map 2.1) plotting the home addresses of Plymouth correspondents and a chart showing the total number of representations received (Chart 2.1).

2.1 Residential Area

Letters were received from 71 Alexandra Road, 8 Anzac Avenue, 48 Ark Royal Close, 7 Ashdown Walk, 21 Bayswater Road, 24 Beaconsfield Road, 1 and, 7 Beattie Road, 29 Beresford Street, 3 Berrow Park Road, 11 (2 letters), and 34 Bickham Road, 2 and 7 Bridwell Close, 30, 60 (2 letters), 82, 85 (2 letters) and 89 (2 letters) and, 122 Bridwell Road, 4 Buckingham Place, 35 Budshead Road, 1 Cample Haye Villas, 53, 59 (2 letters), 73, 88, 94 (2 letters), 99, 103 (2 letters), 115, 118 (2 letters) and 125 Cardinal Avenue, 18 Catherine Street, 19 Central Park Avenue, 39 Chard Road, 49, 53 (2 letters), 105, 156 (2 letters), and 186 (2 letters), Churchway, Civic Centre, 11 Clyde Street, 21 Colebrook Road, 94 Coombe Way, 7 Coronation Place, 28 Cot Hill, 124, 138, Flat 3 140 Devonport Road, 3 Doidges Farm Road, 4 Dovedale Road, 73 Dryburgh Crescent, 13 Edgecumbe Avenue, 4 Elaine Close (5 letters), 54 Elgin Crescent, 10 Ernesettle Crescent, 48 Evelyn Street, 102 and 104 Fegan Road, 27 Fircroft Road, 6 Fisher Road, 67, 76 (2 letters) and 119 Fletemoor Road, 27 Ford Park Road, 33 Fredington Grove, 95 Furzehill Road, 33 Grenville Road, 4, 5 and 26 Hamoaze Avenue, 4 (2 letters), 16 (2 letters) and 20 Harbour Avenue (2 letters) 14 Hastings Street (2 letters), 8 Haswell Close, 6 Havelock Terrace, 38 Hotham Place, 25 Jackson Close (3 letters), 25 Kathleaven Street (5 letters), 11 Kenilworth Road (2 letters), 20b Keyham Road, 23 124 and 221 Kings Tamerton Road, Pentire, Kingeway Gardens, 21 Kneele Gardens, 15 Landrake Close, 14 Little Ash Road, 18 Lockyer Street, 31 Beaufort House, Mariners Court., Lower Street, 8 Lynwood Avenue, 9 Mantle Gardens, 8 Masefield Gardens, 14 Melville Street, 37 Merrivale Road, 15 Mollison Road (2 letters), 33 Moor Lane (2 letters), 26 Mutley Road, 86 Neath Road, 20, 22 and, Normandy House, Normandy Hill, 5 and 94 Normandy Way (2 letters), 109 Ocean Street, Old Farm Road, 12 Pasley Street, 24 (3 letters), 31, 42, 65, 67 (5 letters), 68, 106 (2 letters), 112, 123, 173, 185 (3 letters) and 187 Pemros Road, 12 Pennycross Park Road, 1 Peters Park Lane, 20 Peters Park Road, 9 Plaistow Crescent, 24 Plymbridge Road, 8, 36 (2 letters), 92, 98, 140, 156 and 196 (2 letters) Poole Park Road, 10 Raynham Road, 89 Renaissance Gardens, 111 Renown Street, 6 Richmond Road (3 letters), 31 Roman Way (2 letters), 154 Ross Street (4 letters) 35 Row Lane, 34 Ryder Road, 7 and 20 Saltburn Road, 91E, 116, and 122 (2 letters) Savage Road, 3 and 18 Seacroft Road, 25 Sithney Street, 20 Skylark Rise, 52 Stirling Road, 48 Stuart Road, 45 Sturdee Road, 9 Talbot Gardens, (7 letters), 11 Telegraph Wharf, 72 Thornyville Villas, 1-10

Townsend Avenue, 19 Tracey Court, 11, 38, 50 (2 letters), 75 81 and 93 Vicarage Gardens, First Floor Flat 131, 150, 152 (5 letters) and 196 Victoria Road, 11 Victory Street, 1 and 3 Waverley Road (3 letters), 11 Westcroft Road, 106 Westfield, 464, 576, 578, 627, 796 (7 letters), 810 (2 letters), 822, 827 (2 letters), 855, 858 (3 letters), 864, 891 and 930 Wolseley Road, 19, 41 and 50 Wombwell Crescent, 28, 65, 71, 85, 87 113 and 121 York Road. Letters were also received from the following locations outside Plymouth; Bere Alston (2 letters), Buckfastleigh (4 letters), Burraton (1 letter), Dousland (1 letter), Ivybridge (7 letters), Kingsbridge (1 letter), Loddisewell (1 letter), London (1 letter), Saltash (7 letters), South Brent (2 letters), Swansea (1 letter), Torpoint (1 letter), Totnes (3 letter).

2.2 Health

Letters were received from 14 Admiralty Road, 8 and 18 Agaton Road, 8 Anzac Avenue, 48 Ark Royal Close, 7 Ashdown Walk, 21 Bayswater Road, 24 Beaconsfield Road, 1 Beattie Road, 48 Bickham Park Road, 11 and 34 Bickham Road (2 letters), 6 Bridwell Close, 30. 60, 82, 89 (3 letters) and 122 Bridwell Road, 4 Buckingham Place, 35 Budshead Road, 53 (2 letters), 59 (2 letters), 97, 99 and 115 Cardinal Avenue, 18 Catherine Street, 49, 53 (3 letters), 145, 147, 156, 173, 186 and 188 Churchway, Civic Centre, 11 Clyde Street, 21 Colebrook Road, 89 and 94 Coombe Way, 21 Coppice Gardens, 7 and 15 Coronation Place, 28 Cot Hill, 11 Dennis Close, 124, 138 (3 letters) and Flat 3 140 Devonport Road, 4 Dovedale Road (3 letters), 73 Dryburgh Crescent, 13 Edgecumbe Avenue, 4 Elaine Close (3 letters), 54 Elgin Crescent, 10 and 21 Ernesettle Crescent (2 letters), 48 Evelyn Street, 102 Fegan Road, 27 Fircroft Road, 6 Fisher Road (2 letters), 76 Fletemoor Road (2 letters), 58 Ford Hill, 27 Ford Park Road (3 letters), 25 Fosbrooke Court, 119 and 125 Foulston Avenue (3 letters), 33 Fredington Grove, 40 Furse Park, 95 Furzehatt Road, 95 Furzehill Road, 17 Grizedale Road, 4, 5 and 26 Hamoaze Avenue, 4 (2 letters), 19 (2 letters), 20 (3 letters) and 22 Harbour Avenue, 14 Hastings Street (2 letters), 6 Havelock Terrace, 25 Jackson Close (3 letters), 11 Kenilworth Road (2 letters), 23, 124 and 221 (2 letters) Kings Tamerton Road, Pentire, Kingsway Gardens, 21 Kneele Gardens, 15 Landrake Close, 6 and 14 Little Ash Road, 8 Lynwood Avenue, 2 Mackenzie Place, 14 Melville Road, 15 Mollinson Road (2 letters), 33 Moor Lane (2 letters), 26 Mutley Road, 86 Neath Road, 20 and 22 Normandy Hill, 5, 15 and 94 Normandy Way, Old Farm Road, 108 Osborne Court, 12 and 121 Pasley Street (3 letters), 24 (3 letters), 42, 47, 65, 67, 106 (2 letters), 112, 173, 185 (3 letters) Pemros Road, 12 Pennycross Park Road, 20 Peters Park Road, 24 Plymbridge Road, 7, 8, 36 (2 letters), 92, 98, 156, 196 (2 letters) Poole Park Road, 111 Renown Street, 7 Richmond Grove, 6 Richmond Road, 154 Ross Street (4 letters), 40 Row Lane, 34 Ryder Road, 20 Saltburn Road, 91E, 116, and 122 Savage Road, 3 (2 letters) and 18 Seacroft Road, 25 Sithney Street, 20 Skylark Rise, 13 Springhill, 52 Stirling Road, 48 Stuart Road, 45 Sturdee Road, 29 Sutherland Road, 9 Talbot Gardens (4 letters), 141 Taunton Avenue, 1-10 Townsend Avenue, 19 Tracey Court, 25 Valiant Avenue, 11, 50, 79 and 99 (2 letters) Vicarage Gardens, First Floor Flat 131, First Floor Flat 133, 133, 150, 152 (5 letters) and 198 Victoria Road, 1 (4

letters) and 3 Waverley Road, 7 Westcroft Road, 106 Westfield, Weston Mill Primary School, 20 Whitford Road, 5 Whitleigh Avenue, 464, 576, 578, 627, 796 (4 letters), 810, 858 (2 letters), 860, 864, and 904 Wolseley Road, 2, 15 and 50 Wombwell Crescent, 71, 85 (2 letters) and 113 York Road. Letters were also received from the following locations outside Plymouth; Bere Alston (2 letters), Bristol (1 letter) Buckfastleigh (22 letters), Buckand-in-the-Moor (1 letter), Ivybridge (4 letters), Kingsbridge (1 letter), Newton Ferrers (1 letter) Saltash (6 letters), South Brent (1 letter), Torpoint (2 letter) Wembury (1 letter).

2.3 Traffic

Letters were received from 118 Aberdeen Avenue, 14 Admiralty Street, 19 Agaton Road, 74 Alcester Road, 71 Alexandra Road, 8 Anzac Avenue, 7 Ashdown Walk (2 letters), 24 Beaconsfield Road, 1 and 7 Beattie Road, 3 Berrow Park Road, 11 and 34 (2 letters) Bickham Road, 12 Blairgowrie Road, 2, 6 (2 letters) and 7 Bridwell Close, 60, 82, 85, 122 (2 letters), 140 Bridwell Road, 4 Buckingham Place, 35 Budshead Road, 1 Cample Haye Villas, 53 (4 letters), 59 (2 letters), 73 (2 letters), 88, 91 (2 letters), 94 (4 letters), 97, 103, 118 and 127 Cardinal Avenue, 18 Catherine Street, 19 Central Park Avenue, 53 (4 letters), 105, 145, 147, 156, 186 Churchway, Civic Centre, 11 Clifton Close, 11 Clyde Street, 86 and 94 Coombe Way, 124, 138 (3 letters), Flat 3, 140 Devonport Road, 4 Dovedale Road (3 letters), 73 Dryburgh Crescent, 4 (2 letters) Elaine Close, 10 (2 letters) and 21 Ernesettle Crescent, 48 Evelyn Street, 104 Fegan Road, 27 Fircroft Road (2 letters), 119 Fletemoor Road, 58 Ford Hill, 27 Ford Park Road, 119 and 125 Foulston Avenue (2 letters), 33 Fredington Grove, 95 Furzehatt Road, 95 Furzehill Road, 33 Grenville Road, 17 Grizedale Road, 4, 5, 19, 25 and 26 Hamoaze Avenue, 4 (2 letters), 19 (2 letters), 20 (4 letters) and 22 Harbour Avenue (2 letters), 8 Haswell Close, 6 Havelock Terrace, 25 Jackson Close (3 letters), 12 and 25 (3 letters) Kathleaven Street. 11 Kenilworth Road (3 letters), 20b and 29 Keyham Road, 23, 124 and 221 Kings Tamerton Road, Pentire, Kingsway Gardens, 21 Kneele Gardens, 15 Landrake Close, 2 (2 letters) and 14 Little Ash Road, 8 Lynwood Avenue, 2 Mackenzie Place (2 letters), 8 Masefield Road, 14 Melville Road (2 letters), 37 Merrivale Road, 15 Mollison Road, 86 Neath Road, Normandy House, and 20 Normandy Hill, 5, 15 and 94 Normandy Way (2 letters), 18 Oakcroft Road, Old Farm Road, 108 Osborne Court (2 letters), 12 121 (3 letters) and Pasley Street, 24 (3 letters), 31, 65, 67 (3 letters), 106 (2 letters), 112, 123, 173, 185 (2 letters), 187 Pemros Road, 12 Pennycross Park Road, 20 Peters Park Road, 9 Plaistow Crescent, 24 Plymbridge Road, 7, 36, 92, 98, 156, 196 (2 letters) Poole Park Road, 10 Raynham Road, 111 Renown Street, 7 Reynolds Grove, 31 Roman Way, 154 Ross Street, 35 Row Lane, 7 Saltburn Road, 91E and 122 (2 letters) Savage Road, 3 (2 letters) and 18 Seacroft Road, 25 and 31 Sithney Street, 20 Skylark Rise, 13 Springhill, 174 Stanborough Road, 52 Stirling Road, 48 Stuart Road, 9 Talbot Gardens (6 letters), 141 Taunton Avenue, 72 Thornyville Villas, 19 Tracey Court, 32 Upper Ridings, 38, 50 (2 letters), 75, 81, 93 and 99 (4 letters) Vicarage Gardens, First Floor Flat 131, 150, 152 (5 letters), 153, 196 and 198 Victoria Road, 11 Victory Street, 1 (4 letters) and 3 (2 letters) Waverley Road, 2 West Country Close, 106 Westfield, Weston Mill Primary School, 464, 576, 578, 586, 627, 745, 796 (3 letters), 810, 822, 827, 858 (2 letters), 860, 864, 891,

904 and 930 Wolseley Road, 27, 41 and 50 Wombwell Crescent, 65, 71, 85 (2 letters), 87 and 113 York Road. Letters were also received from the following locations outside Plymouth; Bere Alston (2 letters), Buckfastleigh (2 letters), Dousland (1 letter), Ivybridge (5 letters), Kingsbridge (1 letter), London (1 letter), Saltash, (5 letters), South Brent (2 letters), Tavistock (1 letter), Totnes (4 letters).

2.4 Pollution

Letters were received from 118 Aberdeen Avenue, 8 and 19 Agaton Road, 74 Alcester Road, 57 Alexandra Road, 8 Anzac Avenue, 48 Ark Royal Close, 7 Ashdown Walk, 24 Beaconsfield Road, 48 Bickham Park Road, 34 (2 letters), and 56 Bickham Road, 7 Bridwell Close, 6 (2 letters), 60, 89, 122 (2 letters) Bridwell Road, 4 Buckingham Place, 1 Cample Haye Villas, 53 Cardinal Avenue, 53 (4 letters), 59 (2 letters), 73 (2 letters), 88, 115, 118 (2 letters) and 124 Cardinal Avenue, 18 Catherine Street, 19 Central Park Avenue (2 letters), 49, 53 (2 letters), 105, 147, 173, 186 (2 letters) and 188 Churchway, 11 Clifton Close, 11 Clyde Street, 86 and 94 Coombe Way, 21 Coppice Gardens, 15 Coronation Place, 138 Devonport Road, (4 letters), 4 Dovedale Road (4 letters), 4 Elaine Close (3 letters), 54 Elgin Crescent, 10 (2 letters) and 21 Ernesettle Crescent, 48 Evelyn Street, 102 and 104 Fegan Road, 27 Fircroft Road (2 letters), 6 Fisher Road, (3 letters), 67 and 76 Fletemoor Road (2 letters), 27 Ford Park Road, (3 letters) 25 Fosbrooke Court, 119 and 125 Foulston Avenue (2 letters), 95 Furzehill Road, 8 Glenavon Road, 33 Grenville Road, 19 and 25 Hamoaze Avenue, 4 (2 letters), 16, 19 (2 letters), 20 (2 letters) and 22 Harbour Avenue, 14 Hastings Street (2 letters), 6 Havelock Terrace, 25 Herschel Gardens, 38 Hotham Place, 25 Jackson Close (2 letters), 12 and 25 Kathleaven Street (2 letters), 20b Keyham Road, 29 Keyham Street, 23, 124 and 221 Kings Tamerton Road, Pentire Kingsway Gardens (2 letters), 21 Kneele Gardens, 15 Landrake Close, 14 Little Ash Road, 18 Lockyer Street, 105 Looseleigh Lane, 8 Lynwood Avenue, 2 Mackenzie Place, 9 Mantle Gardens, 15 Mollison Road, 33 Moor Lane, 26 Mutley Road, Normandy House, 20 and 22 Normandy Hill, 5, 15 and 94 Normandy Way, (3 letters), 108 Osborne Court, (2 letters), 12 Pasley Street, 24 (3 letters), 67 (4 letters) 106, 123, 185 (3 letters) and 187 Pemros Road, 9 Plaistow Crescent, 24 Plymbridge Road, 8, 92, 98, 156, 196 Poole Park Road, (2 letters), 10 Raynham Road, 111 Renown Street, 17 Rodney Street, 154 Ross Street (2 letters), (3 letters), 20 Saltburn Road, 91E Savage Road, 3 Seacroft Road, 31 Sithney Street, 20 Skylark Rise, 13 Springhill, 52 Stirling Road, 29 Sutherland Road, 9 Talbot Gardens, (3 letters), 72 Thornyville Villas, 1-10 Townsend Avenue, 19 Tracey Court, 25 Valiant Avenue, 38, 50, 79, 93 and 99 Vicarage Gardens (2 letters), First Floor Flat 131 Victoria Road, First Floor Flat 133, 133, and 152, Victoria Road, 1 (5 letters) and 3 (2 letters) Waverley Road, 2 West Country Close, 20 Whitford Road, 464, 576, 578, 627, 796 (3 letters), 858 (2 letters), 860 864, 891, 904 and 930 Wolseley Road, 15, 19, 27, 41 and 50 Wombwell Crescent, 71, 85 and 113 York Road. Letters were also received from the following locations outside Plymouth; Buckfastleigh (4 letters), Cheriton Fitzpaine (1 letters), Dousland (1 letter), Ivybridge (3 letters), Kingsbridge (1 letter), Saltash (3 letters), South Brent (2 letters), Tavistock (1 letter), Torpoint (1 letter), Totnes (2 letters), Wembury (2 letters).

2.5 Visual Impact

Letters were received from 118 Aberdeen Avenue, 74 Alcester Road, 21 Bayswater Road, 7 Beattie Road, 34 and 56 Bickham Road, 2 and 7 Bridwell Close, 6 (2 letters), 7, 60 Bridwell Road (2 letters), 4 Buckingham Place, 73 (2 letters), 91, (2 letters), 94 (5 letters), 99, 103, 115, 118 and 127 Cardinal Avenue, 39 Chard Road, 53 (2 letters) and 81 Churchway, 11 Clifton Close, 11 Clyde Street (2 letters), 86 Coombe Way (2 letters), 15 Coronation Place, 138 Devonport Road, 4 Dovedale Road, 13 Edgecumbe Avenue, 4 Elaine Close (3 letters), 10 Ernesettle Crescent, 48 Evelyn Street, 104 Fegan Road, 6 Fisher Road (3 letters), 125 Foulston Avenue, 95 Furzehatt Road, 95 Furzehill Road, 5, 19 and 26 Hamoaze Avenue, 20 Harbour Avenue (2 letters), 6 Havelock Terrace, 25 Jackson Close (3 letters), 25 Kathleaven Street (6 letters), 221 Kings Tamerton Road, 15 Landrake Road, 8 Lynwood Avenue, 9 Mantle Gardens, 37 Merrivale Road, 5, 15, 94 (2 letters) Normandy Way, Old Farm Road, 12 Pasley Street, 24 (3 letters), 106, 173 and 185 (2 letters) Pemros Road, 12 Pennycross Park Road, 20 Peters Park Road, 24 Plymbridge Road, 8 (2 letters), 36 (2 letters), 140, 196 (2 letters) Poole Park Road, 17 Rodney Street, 154 Ross Street (4 letters), 35 and 40 Row Lane, 7 Saltburn Road, 116 and 122 Savage Road, 3 Seacroft Road, 174 Stanborough Road (2 letters), 9 Talbot Road (4 letters), 72 Thornyville Road, 19 Tracey Court, 32 Upper Ridings, 38 and 99 Vicarage Gardens (2 letters), First Floor Flat 131, 133, 150 (2 letters), 152 (7 letters), and 198 Victoria Road, 1 Waverley Road, 627, 796 (7 letters), 822, 858, 860, 864 and 930 Wolseley Road, 15 Wombwell Crescent, 71 and 87 York Road. Letters were also received from the following locations outside Plymouth; Buckfastleigh (1 letters), Ivybridge (1 letters), London (1 letter), Saltash (2 letters), Swansea (1 letter), Totnes (3 letters).

2.6 Close to Schools

Letters were received from 118 Aberdeen Avenue, 34 Bickham Road (2 letters), 7 Bridwell Close, 30 and 89 Bridwell Road, 35 Budshead Road, 1 Cample Haye Villas, 53, 88, 94, 99 and 118 Cardinal Avenue, 19 Central Park Avenue, 49 and 53 (2 letters) Churchway, Civic Centre, 11 Clifton Close, 21 Colebrook Road, 7 Coronation Place, 138 Devonport Road, 3 Doidges Farm Road, 4 Dovedale Road (2 letters), 73 Dryburgh Crescent, 4 Elaine Close (2 letters), 48 Evelyn Street, 27 Fircroft Road, 67, 76 (2 letters) and 119 Fletemoor Road, 33 Fredington Grove, 95 Furzehill Road, 26 Hamoaze Avenue, 22 Harbour Avenue (2 letters), 6 Havelock Terrace, 12 Kathleaven Street, 11 Kenilworth Road (3 letters), 124 and 221 (2 letters) Kings Tamerton Road, 15 Landrake Close, 8 Lynwood Avenue, 2 Mackenzie Place (2 letters) 9 Mantle Gardens, 14 Melville Road, 26 Mutley Road, 22 Normandy Hill, 5, 15, 34 and 94 (2 letters) Normandy Way, 108 Osborne Court (2 letters), 24 (3 letters), 31, 42, 67 (5 letters) 106 (2 letters), 112, 123 and 185 Pemros Road, 70 Peters Park Close, 20 Peters Park Road, 24 Plymbridge Road, 8 Poole Park Road, 154 Ross Street (4 letters), 35 Row Lane, 20 Saltburn Road, 116 Savage Road, 3 Seacroft Road, (2 letters), 48 Stuart Road, 45 Sturdee Road, 72 Thornyville Gardens, 11, 38, 50 (2 letters) and 75 Vicarage Gardens, 152 (2 letters) and 196 Victoria Road, 11 Victory Street, 1 Waverley Road (3 letters) and 3 Waverley Road (2 letters), 2 West Country Close, Weston Mill Primary School, 745, 796 (2 letters), 822, 860, 891 and 904 Wolseley Road,

41 and 50 Wombwell Crescent, 85 (2 letters) and 113 York Road. Letters were also received from the following locations outside Plymouth; Bristol (1 letter), Buckfastleigh (13 letters), Buckland-in-the-Moor (1 letter), Ivybridge (2 letters), Loddisell (1 letter), London (1 letter), Saltash (3 letters), Torpoint (2 letters), Totnes (2 letters).

2.7 Outdated Technology

Letters were received from 14 Admiralty Road, 71 Alexandra Road, 7 Ashdown Walk, 21 Bayswater Road (2 letters), 37 Beatrice Avenue, 29 Beresford Street, 34 Bickham Road, 12 Blairgowrie Road, 7 Bridwell Close, 60, 85 (2 letters) and 89 Bridwell Road, 4 Buckingham Place, 53, 115 and 118 Cardinal Avenue, 19 Central Park Avenue, 53 (2 letters), 105, 186 and 188 Churchway, 11 Clyde Street, 21 Colebrook Road, 21 Coppice Gardens, 28 Cot Hill, 124 and 138 Devonport Road, (2 letters), 13 Edgecumbe Avenue, 4 Elaine Close, (4 letters), 10 and 21 Ernesettle Crescent, 48 Evelyn Street, 6 Fisher Road, 58 Ford Hill, 27 Ford park Road, 125 Foulston Avenue, 33 Fredington Grove, 95 Furzehatt Road, 8 Glenavon Road, 5 Hamoaze Avenue, 4, 16 (2 letters) and 20 Harbour Avenue (2 letters), 14 Hastings Street, 25 Jackson Close, (3 letters), 25 Kathleaven Street (2 letters), 11 Kenilworth Road, 20b Keyham Road, 221 Kings Tamerton Road (2 letters), 21 Kneele Gardens, 15 Landrake Close, 2 Little Ash Road, 18 Lockyer Street, 9 Mantle Gardens, 8 Masefield Gardens, 108 Osborne Court, (2 letters) 185 Pemros Road, (2 letters), 12 Pennycross Park Road, 1 Peters Park Lane, 196 Poole Park Road, (2 letters), 111 Renown Street, 17 Rodney Street, 31 Roman Way, 154 Ross Street, (3 letters), 35 Row Lane, 20 Saltburn Road, 3 Seacroft Road, 174 Stanborough Road, 29 Sutherland Road, (2 letters), 9 Talbot Gardens, 2 Tor Road, 141 Taunton Avenue, 19 Tracey Court, 25 Valiant Avenue, 38 Vicarage Gardens, 150 Victoria Road, 1 (5 letters), 3 Waverley Road (2 letters), 2 West Country Close, 464, 627, 745, 796 (6 letters), 860 and 904 Wolseley Road, 27 Wombwell Crescent, Letters were also received from the following locations outside Plymouth; Bristol (1 letter), Buckfastleigh (12 letters), Buckland-in-the-Moor (1 letter), Cheriton Fitzpaine (1 letter), Ivybridge (4 letters), Kingsbridge (1 letter), Loddiswell (1 letter), Saltash (2 letters), South Brent (1 letter), Torpoint (1 letter), Totnes (3 letters), Wembury (1 letter).

2.8 Noise from Plant

Letters were received from 19 Agaton Road, 24 Beaconsfield Road, 29 Beresford Street, 34 Bickham Road (2 letters), 6 (2 letters) and 60 Bridwell Road, 53 (2 letters), 59 (2 letters), 94 (3 letters), 99, 103, 118 and 124 Cardinal Avenue, 18 Catherine Street, 105 and 173 Churchway, 11 Clifton Close, 94 Coombe Way, 4 Elaine Close, (5 letters), 76 Fletemoor Road, 125 Foulston Avenue (2 letters), 40 Furse Park, 19, 25 and 26 Hamoaze Avenue, 20 Harbour Avenue, 25 Kathleaven Street (2 letters), 20b Keyham Road, 9 Mantle Gardens, 20 Normandy Hill, 5, 94 Normandy Way, (2 letters), Old Farm Road, 12 Pasley Street, 24 (3 letters), 67 (3 letters), 106 and 185 Pemros Road, 1 Peters Park Lane, 7, 92, 98, 140 and 156 Poole Park Road, 17 Rodney Street, 154 Ross Street, (3 letters), 40 Row Lane, 91E Savage Road, 3 Seacroft Road, 9 Talbot Gardens, (5 letters), 19 Tracey Court, 38, 50 (2 letters) and 99 Vicarage Gardens (2 letters), 133, 152 (3 letters) and 198

Victoria Road, 1 and 3 Waverley Road, 576, 586, 796 (3 letters), 810, 822, 827, 860 and 891 Wolseley Road, 15, 19 and 50 Wombwell Crescent, 85 York Road. Letters were also received from the following locations outside Plymouth; London (1 letters), Saltash (3 letters).

2.9 Consultation Process

Letters were received from 118 Aberdeen Avenue, 21 Bayswater Road, 32 Beaufort House, 34 Bickham Road, 7 Bridwell Close, 53 (2 letters), 88, 94 Cardinal Avenue, (5 letters), 147 and 173 Churchway, 94 Coombe Way, 138 Devonport Road, (2 letters) 13 Edgecumbe Avenue, 76 and 119 Fletemoor Road, 125 Foulston Avenue, 95 Furzehatt Road, 20 Harbour Avenue, 221 Kings Tamerton Road, 32 Beaufort House, Lower Street, 33 Moor Lane, Old Farm Road, 108 Osborne Court, 121 Pasley Street, 67 Pemros Road, (3 letters), 8, 92 and 98 Poole Park Road, 89 Renaissance Gardens, 17 Rodney Street, 154 Ross Street, 91E Savage Road, 9 Talbot Gardens (3 letters), 38, 50, 79, 93, 99 Vicarage Gardens, 150, 152 (7 letters) and 153 Victoria Road, 1 Waverley Road, 2 West Country Close, 576, 578, 796 (5 letters), 810, 855, 858 (2 letters), 860 and 891 Wolseley Road, (2 letters). Letters were also received from the following locations outside Plymouth; Bristol (1 letter), Buckfastleigh (17 letters), Buckland-in-the Moor (1 letter), Ivybridge (2 letters), Saltash (3 letters), South Brent (3 letter), Totnes (2 letters).

2.10 Dangerous Location

Letters were received from 7 Beattie Road, 34 and 56 Bickham Road, 7 Bridwell Close, 64 Bridwell Road, 1 Cameron Drive, 1 Cample Haye Villas, 53 (3 letters) and 94 Cardinal Avenue (2 letters) 105 Churchway, 138 Devonport Road, 4 Dovedale Road, 4 Elaine Close, 27 Ford Park Road, 125 Foulston Avenue, 14 Hastings Street, 25 Kathleaven Street, 11 Kenilworth Street, 5 Normandy Way, 47, 106 (2 letters) and 123 Pemros Road, 1 Peters Park Lane (2 letters), 140 Poole Park Road, 6 Richmond Road, 34 Ryder Road, 31 Sithney Street, 9 Talbot Gardens, (5 letters), 11 Telegraph Wharf, 1-10 Townsend Avenue, 38, 99 (2 letters), 130 Vicarage Gardens, 152 Victoria Road (3 letters) 1 Waverley Road (3 letters), 586, 627, 796 (3 letters), 827 and 858 (2 letters) Wolseley Road, 71 York Road. Letters were also received from the following locations outside Plymouth; Ivybridge (1 letter), Saltash (1 letter), Totnes (1 letter), South Brent (1 letter).

2.11 Costly to Run

Letters were received from 14 Admiralty Road, 71 Alexandra Road, 7 Ashdown Walk, 21 Bayswater Road, 34 Bickham Road (2 letters), 7 Bridwell Close, 4 Buckingham Place, 53 and 94 Cardinal Avenue, 105, 145 and 186 Churchway, 124 Devonport Road, 73 Dryburgh Crescent, 4 Elaine Close, (2 letters), 76 Fletemoor Road, 119 Foulston Avenue, 20 Harbour Avenue, 25 Kathleaven Street (2 letters), 11 Kenilworth Road, 20b Keyham Road, 18 Lockyer Street, 8 Masefield Gardens, 19 Northumberland Street, 108 Osborne Court, 67 Pemros Road, 8 Poole Park Road, 154 Ross Street, (3 letters) 174 Stanborough Road, 29 Sutherland Road, 2 Tor Road, 152 Victoria Road, 2 West Country Close, 745 and 796 Wolseley Road, (7 letters). Letters were also received from the following locations outside Plymouth; Bristol (1 letter),

Buckfastleigh (8 letters), Buckland – in- the Moor (1 letter) Cheriton Fitzpaine (1 letter), Torpoint (1 letter)

2.12 Property Values

Letters were received from 1 and 7 Beattie Road, 60, 122 Bridwell Road, (2 letters), 59 (2 letters), 88 , 94, 97, 118, 124 and 125 Cardinal Avenue, 105 Churchway, 86 Coombe Way, 15 Coronation Place, 67 and 119 Fletemoor Road, 119 Foulston Avenue, 4 Hamoaze Avenue, 22 Harbour Avenue, 25 Jackson Close, (3 letters), 12 Kathleaven Street, 119 Foulston Avenue, 14 Little Ash Road, 2 Mackenzie Place, (2 letters), 33 Moor Lane, (2 letters), 20 Normandy Hill, Normandy House Normandy Hill, 24, (3 letters) and 123 Pemros Road, 7, 156 and 196 Poole Park Road (2 letters), 17 Rodney Street, 8 Talbot Gardens, 152 Victoria Road, 464 and 745 Wolseley Road, 19 Wombwell Crescent, 71 and 113 York Road. Letters were also received from the following locations outside Plymouth; Loddiswell (1 letter).

2.13 Contrary to National/Regional/City policy

Letters were received from 21 Bayswater Road, 53 Cardinal Avenue, 105 Churchway, 186 Churchway, Civic Centre, 138 Devonport Road, 1 Elaine Close, 4 Elaine Close, (2 letters), 21 Ernesettle Crescent, 48 Evelyn Street, 20 Harbour Avenue, 20b Keyham Road, 18 Lockyer Street, 31 Beaufort House, Mariners Court Lower Street (2 letters), 15 Mollison Road, 20 Normandy Hill, 5 and 94 Normandy Way, 24 Pemros Road (3 letters), 1 Peters Park Lane, 154 Ross Street (2 letters), 9 Talbot Gardens, 38 and 99 Vicarage Gardens (2 letters), 586 , 796 and 904 Wolseley Road, 27 Wombwell Crescent. Letters were also received from the following locations outside Plymouth; Bristol (1 letter), Buckfastleigh (12 letters), Buckland-in-the-Moor (1 letter), Loddiswell (1 letter), Saltash (1 letter), South Brent (2 letters), Totnes (1 letter).

2.14 Smell

Letters were received from 74 Alcester Road, 29 Beresford Street, 7 Bridwell Close, 59 (2 letters) and 99 Cardinal Avenue, 18 Catherine Street, 173 Churchway, 86 and 94 Coombe Way, 76 Fletemoor Road, 125 Foulston Avenue, 40 Furse Park, 8 Harbour Avenue, 25 Jackson Close, (3 letters) 6 Little Ash Road, 106 and 185 Pemros Road, 70 Peters Park Close, 1 Peters Park Lane, 7, 92 and 98 Poole Park Road, 17 Rodney Street, 40 Row Lane, 91E Savage Road, 3 Seacroft Road, 9 Talbot Gardens, 133, 152 (2 letters) 198 Victoria Road, 576, 578, 586, 796 (2 letters), 576, 578, 586, 796 (2 letters), 858 and 860 Wolseley Road, 2 Wombwell Crescent. Letters were also received from the following locations outside Plymouth; London (1 letter), Saltash (2 letters).

2.15 Threat to Natural Environment

Letters were received from 19 Agaton Road, 21 Bayswater Road, 3 Berrow Park Road, 53, 73, 91 (2 letters), 99, 103 and 118 Cardinal Avenue, 11 Clyde Street, 4 Dovedale Road, 73 Dryburgh Crescent, 4 Elaine Close, 21 Ernesettle Crescent, 48 Evelyn Street, 27 Fircroft Road, 27 Ford Park Road, 125 Foulston Avenue, 26 Hamoaze Avenue, 20 Harbour Avenue, 94 Normandy Way, 123 Pemros Road, 8 Poole Park Road, 154 Ross Street, (3 letters), 13 Springhill, 8 Talbot Gardens, 152 (2 letters) and 196 Victoria Road.

Letters were also received from the following locations outside Plymouth; Bere Alston (2 letters), Ivybridge (4 letters), South Brent (2 letters), Totnes (3 letters).

2.16 Discourage Recycling

Letters were received from 71 Alexandra Road, 21 Bayswater Road, 34 Bickham Road, 7 Bridwell Close, 53 Cardinal Avenue, 124, 138 (2 letters) and Flat 3 140 Devonport Road, 3 Doidges Farm Close, 4 Dovedale Road, 4 Elaine Close (2 letters), 21 Ernesettle Crescent, 6 Fisher Road, (2 letters), 27 Ford park Road, 11 Kenilworth Road (2 letters), 4 Harbour Avenue, 18 Lockyer Street, 8 Masefield Gardens, 108 Osborne Court, 196 Poole Park Road, (2 letters), 154 Ross Street, 29 Sutherland Road, 99 Vicarage Gardens, (2 letters), 1 Waverly Road, 796 (3 letters) and 904 Wolseley Road. Letters were also received from the following locations outside Plymouth; Buckfastleigh (1 letter), Cheriton Fitzpaine (1 letter), Saltash (1 letter), Tavistock (1 letter).

2.17 Hazardous materials produced

Letters were received from 34 and 56 Bickham Road, 89 Bridwell Road, 4 Buckingham Place, 53 and 103 Cardinal Avenue, 11 Clyde Street, 28 Cot Hill, 4 Dovedale Road, 4 Elaine Close (2 letters), 10 and 21 Ernesettle Crescent, 48 Evelyn Street, 27 Ford Park Road, 33 Fredington Grove, 19 Hamoaze Avenue, 25 Kathleaven Street (2 letters), 21 Kneele Gardens, 5 Normandy Way, 1 Peters Park Lane, 140 Poole Park Road, 111 Renown Street, 29 Sutherland Road, 8 and 9 Talbot Gardens, 152 Victoria Road, 1 Waverley Road, 796 (2 letters) and 891 Wolseley Road, Letters were also received from the following locations outside Plymouth; Buckfastleigh (2 letters), Ivybridge (3 letters) Kingsbridge (1 letter), Saltash (1 letter), South Brent (1 letter) Totnes (1 letter).

2.18 Will bring in waste from other areas

Letters were received from 118 Aberdeen Avenue, 14 Admiralty Road, 7 Beattie Road, 3 Berrow Park Road, 7 Bridwell Close, 4 Buckingham Place, 59 (2 letters) and 73 Cardinal Avenue, 11 Clyde Street, 28 Cot Hill, 4 Elaine Close (2 letters), 6 Fisher Road (2 letters), 27 Ford Park Road, 4 and 22 Harbour Avenue, 11 Kenilworth Road, 20b Keyham Road, 221 Kings Tamerton Road, 18 Lockyer Street (2 letters), 14 Melville Road, 19 Northumberland Street, 108 Osborne Court, 24 Plymbridge Road, 10 Raynham Road, 111 Renown Street, 152 Victoria Road, 796 and 891 Wolseley Road, 85 York Road. Letters were also received from the following locations outside Plymouth; Kingsbridge (1 letter) Loddiswell (1 letter) London (1 letter), Torpoint (1 letter).

2.19 Light Pollution

Letters were received from 19 Agaton Road, 7 Ashdown Walk, 34 Bickham Road (2 letters), 6 Bridwell Road, (2 letters), 53 and 99 Cardinal Avenue, 105 and 173 Churchway, 11 Clyde Street, 125 Foulston Avenue, 25 Kathleaven Road (2 letters), 20b Keyham Road, 20 Normandy Hill, 94 Normandy Way, Old Farm Road, 67 Pemros Road, 8 Poole Park Road, 154 Ross Street, 3 Seacroft Road, 9 Talbot Gardens (2 letters), 19 Tracey Court, 38 and 50 Vicarage Gardens, 152 Victoria Road, (2 letters), 1 Waverley Road, 891

Wolseley Road, 19 Wombwell Crescent. Letters were also received from the following locations outside Plymouth; Buckfastleigh (1 letter) and Totnes (1 letter).

2.20 Tourism Impact

Letters were received from 4 Buckingham Place, 105 Churchway, 48 Evelyn Street, 6 Fisher Street (2 letters), 27 Ford Park Road, 119 Foulston Avenue, 19 Hamoaze Avenue, 6 Havelock Avenue, 11 Kenilworth Road, 20b Keyham Road, 221 (2 letters) Kings Tamerton Road, 2 Little Ash Road, 26 Mutley Road, 112 Pemros Road, 24 Plymbridge Road, 8 Poole Park Road, 154 Ross Street, 31 Sithney Street, 174 Stanborough Road, 9 Talbot Gardens, 11 Telegraph Wharf, 19 Tracey Court 152 Victoria Road (2 letters), 796 (5 letters), 860 and 930 Wolseley Road. Letters were also received from the following locations outside Plymouth; Kingsbridge (1 letter), Loddiswell (1 letter).

2.21 Not a designated waste site

Letters were received from 3 Berrow Park Road, 53 and 94 Cardinal, 1 Elaine Close, 22 Harbour Avenue (2 letters), 32 Beaufort House, Lower Street, 12 Pasley Street, 154 Ross Street (2 letters) 152 Victoria Road (2 letters) 1 Waverly Road (2 letters), 796 (2 letters) 810, 860 and 891 Wolseley Road. Letters were also received from the following locations outside Plymouth; Ivybridge (3 letters), South Brent (2 letter), Totnes (3 letters).

2.22 Flood Risk/Rising Sea Levels

Letters were received from 29 Beresford Street, 7 Bridwell Close, 60 Bridwell Road (2 letters), 4 Buckingham Place, 73 Cardinal Avenue (2 letters), 186 Churchway, 4 Dovedale Road (2 letters) 4 Elaine Close, 27 Fircroft Road (2 letters), 76 Fletemoor Road, 125 Foulston Avenue (3 letters), 2 Little Ash Road, 33 Moor Lane (2 letters), 24 Pemros Road (3 letters), 152 Victoria Road, 586, 796, 860, 864 and 891 Wolseley Road.

2.23 Terrorist Attack

Letters were received from 21 Bayswater Road, 56 Bickham Road, 97 Cardinal Avenue, 10 Ernesettle Crescent, 27 Ford Park Road, 5 Hamoaze Avenue, 5 Normandy Way, 12 Pennycross Park Road, 29 Sutherland Road, 99 Vicarage Road, 152 Victoria Road, 796 (2 letters), 817 and 860 Wolseley Road.

2.24 Human Rights

Letters were received from 188 Churchway, 4 Elaine Close, 11 Kenilworth Road, 140 Poole Park Road, 9 Talbot Gardens, 38 Vicarage Gardens Letters were also received from the following locations outside Plymouth; Buckfastleigh (5 letter,)South Brent (1 letter),.

2.25 Loss of Light

Letters were received from 7 Ashdown Walk, 29 Beresford Street, 34 Bickham Road (2 letters), 124 Cardinal Avenue, 4 Elaine Close, 125 Foulston Avenue (2 letters), 19 and 26 Hamoaze Avenue, 9 Talbot Gardens (2 letters).

2.26 Uncertain Economic Future

Letters were received from 85 Bridwell Close, 73 Cardinal Avenue, 138 Devonport Road, 1 and 4 (3 letters) Elaine Close, 9 Talbot Gardens.. Letters were also received from the following locations outside Plymouth; Cheriton Fitzpaine (1 letter), London(1 letter), South Brent(1 letter).

2.27 Inadequate Mitigation

Letters were received from 3 Berrow Park Road ,18 Catherine Street, 105 Churchway, 18 Lockyer Street, 9 Talbot Gardens,152 (2 letters) Victoria Road ,796 Wolseley Road (2 letters),827 Wolseley Road. Letters were also received from the following locations outside Plymouth; London (1 letter).South Brent (1 letter).

2.28 Close to Naval Rehabilitation Centre

Letters were received from 125 Foulston Avenue (2 letters), 124 Kings Tamerton Road, 3 Waverley Road

2.29 Disruption during Construction

Letters were received from 9 and 57 Talbot Gardens, 1-10 Townsend Avenue, 796 Wolseley Road.

2.30 Close to Heritage Site

Letters were received from 3 Seacroft Road, 860 Wolseley Road, 19 Wombwell Crescent

2.31 Earthquakes

Letters were received from 154 Ross Street and 152 Victoria Road

2.32 Disputed Ownership

Letters were received from 8 Poole Park Road

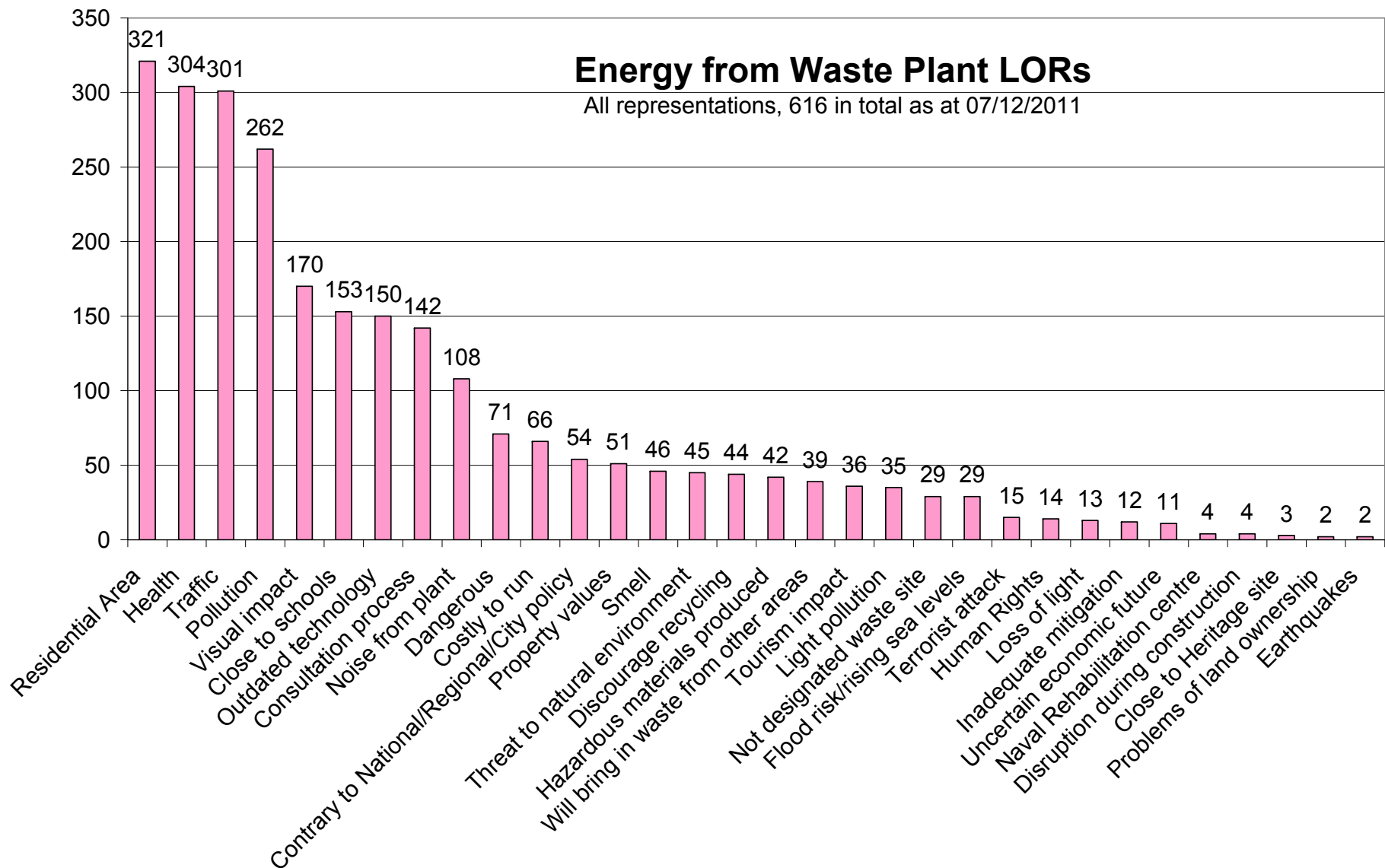
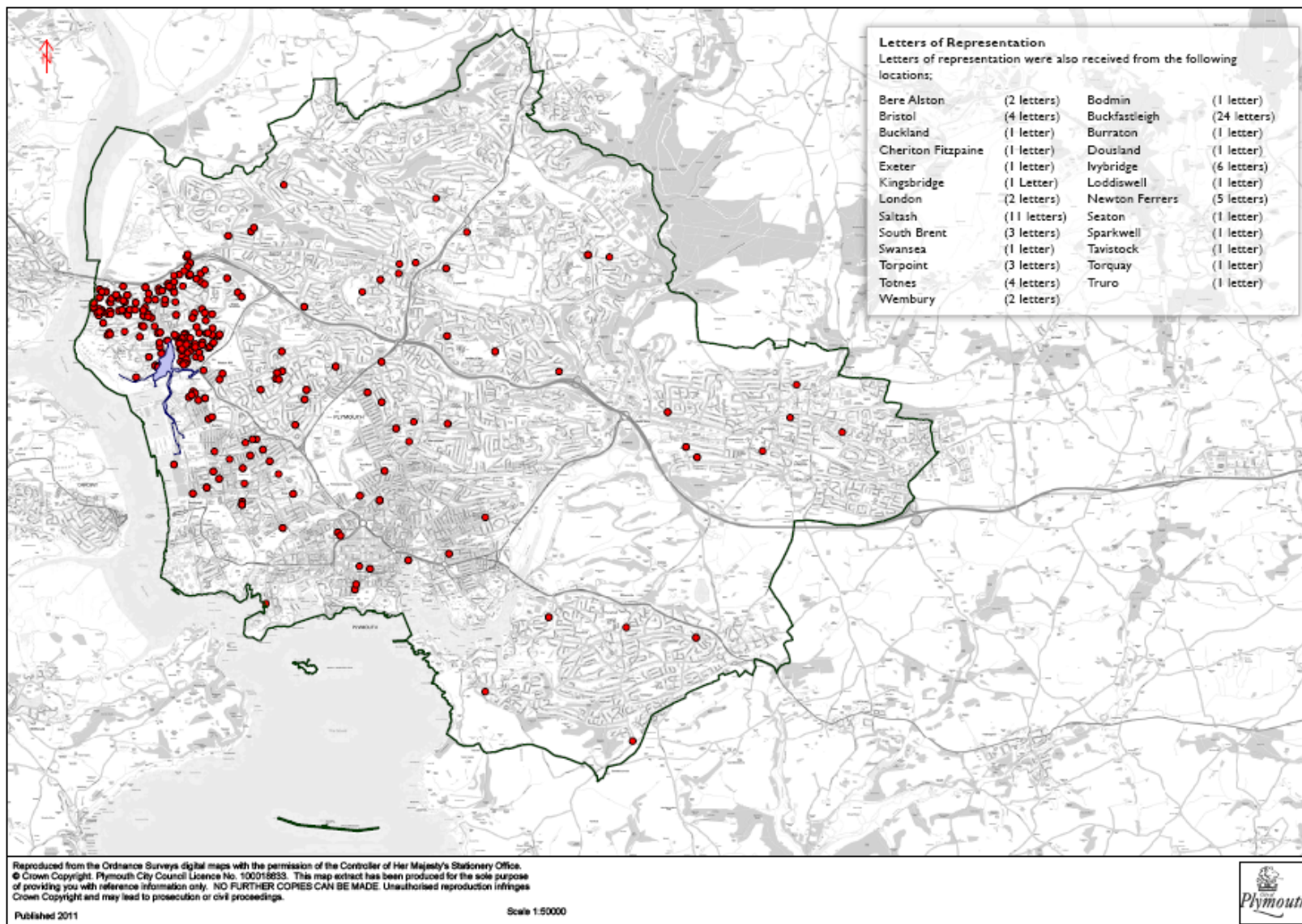


Chart 2.1 Total numbers of letters of representation received.



Map 2.1 Geographical distribution of letters of representation received, as 06/12/2011.

APPENDIX 3
Assessment of the Applicant's Alternative Sites Assessment

Assessment of the Applicant's Alternative Sites Assessment

Requirement to Consider Alternative Sites

Statutory planning policy, including the development plan for the North Yard site, does not explicitly require applicants for planning permission for waste management development to consider alternative locations or to demonstrate that an application site is the best location for the proposed development when compared with alternative locations. The Environmental Impact Assessment (EIA) regulations¹ require that an Environmental Statement (ES) need only include **“an outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects”**. The Regulations do not therefore require an exhaustive and in depth examination of all possibilities and National policy does not seek an optimal arrangement of facilities as a key objective.

It is however accepted that the consideration of an alternative site may be necessary in a planning decision where the development would cause harm and where the need for the development is put forward as a material consideration weighing in favour of a grant of planning permission.

Case law, such as *Trusthouse Forte Hotels Ltd v Secretary of State for the Environment* (1987, 53p&C.R. 293) is helpful in establishing in this case the relevance of the availability and suitability of an alternative location for the proposed development and this case has been cited in recent Secretary of State decisions in Cornwall and Nottinghamshire.

The Inspector in the Cornwall case states the following:

“Mr. Justice Simon Brown (as he was then) said in the Trusthouse Forte Hotel Ltd v Secretary of State for the Environment... the following principles apply when determining whether the consideration of alternatives is a material consideration to which the decision maker must have regard in a development control decision:

- (1) the starting point is that land may be developed in any way which is acceptable for planning purposes. The fact that that other land exists on which the development would be even more acceptable would not justify the refusal of planning permission;*
- (2) however, where there are clear planning objections to development on a particular site it may be relevant and necessary to consider whether there is a more appropriate site elsewhere. This is particularly so when the development is bound to have adverse effects and the argument in support of the application is that the need for the development outweighs any planning disadvantages;*
- (3) the approach of Lord Justice Oliver in Greater London Council v Secretary of State for the Environment (1986) 52 P. &C.R. 158 is helpful. He said the consideration of alternatives will generally be appropriate in cases having the following characteristics: “first of all, the presence of a clear public convenience, or advantage, in the proposal under consideration; secondly, the existence of inevitable adverse effects or disadvantages to the public or to some section of the public in the proposal; thirdly, the existence of an alternative site for the same project which would not have those effects, or would not have them to the same extent; and fourthly, a*

¹ The Town and Country Planning (Environmental Impact Assessment) Regulations 2011, Schedule 4, Part 1, Paragraph 2

situation in which there can only be one permission granted for such development or at least only a very limited number of permissions”; and

- (4) there may be cases where, even although they contain the characteristics referred to above, nevertheless it could be properly be regarded as unnecessary to go into questions of comparability. This would be so particularly if the environmental impact was relatively slight and the planning objections were not especially strong.”*

The degree to which potential merits or demerits of alternative sites for an Energy from Waste plant with Combined Heat & Power (CHP) to serve the South West Devon Waste Partnership (SWDWP) contract is a material consideration to the determination of this planning application is dependent on, broadly speaking, the need for the facility, the significance of any adverse effects and the likelihood of another site being available which would not have such adverse effects. The ES acknowledges that the proposed development at North Yard could result in some adverse effects, therefore it is necessary to consider whether there is an alternative site which would not have similar, other, or lesser, adverse effects.

Context

The remainder of the report provides the background to the production of the Waste DPD, the emergence of North Yard as a potential site during the procurement process through to the submission of the planning application and then the assessment of the alternative sites analysis. A timeline is provided in a table as an appendix to this report (appendix I)

The Planning Authority’s approach to identifying suitable sites

The Site Search Exercise (Informing the production of the Core Strategy and Waste Development Plan Document)

In order to identify suitable locations for strategic waste management facilities the City Council commissioned an independent assessment of the whole city. This exercise² was undertaken early in 2005. The extant guidance was provided by PPG10. Paragraph A51 of Annex I of PPG10 provided some guidance on the potential siting of waste management facilities suggesting that preferred locations included: industrial areas; degraded, contaminated or derelict land; existing and former quarries; existing landfill sites; existing or redundant sites or buildings; sites previously occupied by other types of waste management facilities as well as other suitable sites such as those located close to railways or water transport wharves, or major junctions in the road network. The exercise was also informed by the draft PPS10 which indicated that waste planning authorities should consider: first, site management of the waste where it arises; and then industrial sites, looking for opportunities to co-locate facilities together. It was indicated that priority should be given to the re-use of previously-developed land and also, in rural areas, redundant farm buildings and their curtilages, before greenfield sites. This was broadly unchanged when PPS10 was published in November 2005.

Site Identification

The study then sought to specify a site size threshold to discount those sites that were likely to be too small to usefully accommodate a new facility. Although at this stage, a threshold of 1 hectare was adopted, it was acknowledged that a strategic facility would require at least

² Plymouth Waste Local Development Document: Search for Potential Waste Management Sites, July 2005

2 hectares and this criterion was later explicitly adopted in respect of the strategic sites for waste recovery.

The application of this criterion reduced the number of sites under consideration to 85 sites. These, and those discounted, were identified in Figure 5.1 of the Entec Report (2005).

Screening of Sites

To assist in establishing the suitability of sites to accommodate waste uses, a desk-based evaluation was undertaken to identify those areas of the City that were considered 'in principle' unsuitable for development. These are referred to as exclusionary criteria and detailed in section 2.2.4 of the Entec (2005) report³. The majority of this data was available through the City Council. Other data was obtained from English Nature (now Natural England) and the Environment Agency. The application of this data reduced the number of sites under consideration to 54.

Assessment and Consultation

To establish the relative attributes of each of the 54 sites under consideration, further assessment and consultation was undertaken. This included a further desk-based evaluation against discretionary criteria and these are detailed in section 2.2.5 of the Entec Report (2005). Sites were considered 'in the round', along with other technical and location considerations, such as accessibility, alternative uses, availability, amenity of neighbouring land users and other environmental assets. Each site was subjected to further assessment through consultations with the Environment Agency, the Land Registry and Plymouth Airport. Council Officers provided support on matters such as **availability** and inputted to the constraints assessment. The number of sites under consideration for strategic and local waste management facilities were therefore reduced to 13 sites (with a further three identified as having some potential subject to master-planning activity).

Strategic Sites

Five of these 13 sites (including Coypool and Ernesettle) were identified as having some potential to accommodate a strategic facility. These were derived through application of a site assessment pro-forma which was used during detailed assessments that sought to interrogate the attributes of each site and ultimately to identify the types of use that could be appropriate. This was again undertaken in consultation with officers of the City Council. Of particular interest were those sites that held greatest potential for the co-location of facilities. Aside from Ernesettle and Coypool, which were identified as sites of potential strategic importance for waste management including recovery, three other sites were identified for inclusion within the Council's Core Strategy (Adopted April 2007) for this purpose. The site assessment process found no sites suitable to provide new landfill or landraise capacity.

Core Strategy Policy CS25 states the following:

"The Council will facilitate the provision of new or enhanced waste management and treatment facilities, of sufficient capacity to manage waste arising in the city, and potentially from adjoining areas, through the allocation of sufficient land for strategic and local waste management and treatment infrastructure. This will consist of:

³ The allocated site at Ernesettle is affected by the Royal Naval Armaments Depot (RNAD) explosive arc which formed part of the exclusionary criteria detailed in section 2.2.4 of the Entec, 2005 study. However it was not considered to constrain the site's potential to accommodate a strategic waste management facility as the constraint applied to approximately only 20% of the site.

1. *A range of sites to accommodate Strategic Waste Management and Treatment infrastructure of sufficient capacity to manage and treat the municipal, commercial and industrial, and construction / demolition waste arising in Plymouth and adjoining areas. The combination of sites would be expected to be able to accommodate a range of waste of management and treatment facilities and technologies, including: recycling and composting; bulk waste transfer; and treatment of waste by mechanical, biological and thermal (with energy recovery) methods, but not disposal by landfill.*

The allocation of such sites in the Waste DPD should explore potential in the following general areas:

1. *Coypool*
2. *Chelson Meadow (existing waste management facility)*
3. *Moorcroft Quarry*
4. *Prince Rock*
5. *Land west of Ernesettle...*

Plymouth's Waste Development Plan Document (Adopted 2008)

The sites at Coypool and Ernesettle were subsequently put forward as Strategic sites for the management of municipal solid waste and commercial and industrial waste through the production of the Waste DPD and were subsequently allocated in the adoption of the Waste DPD in 2008. The following sites which were identified as having potential in the Core Strategy were therefore discarded as being unsuitable for strategic facilities for the following reasons:

- Chelson Meadow was discarded on the basis that the majority of the site, comprising the capped landfill, would not be developable. A comparatively small area (about 1 ha) comprising a recycling centre is available to accommodate a complementary local facility;
- Princes Rock Depot was identified as a location for recycling only. The site was discarded as a strategic location primarily due to proximity of residential uses (almost directly abutting the site) and the requirement for the current depot operations to remain;
- Moorcroft Quarry was discarded as it is an operational quarry but inert recycling was considered to be appropriate and complementary to existing uses.

The analysis of waste requirements and the land needed to develop new facilities indicated that both Coypool and Ernesettle would be required to deal with municipal solid waste and commercial and industrial waste streams.

In accordance with the Core Strategy (Waste section 13) the approach to the allocation of waste management sites did not seek to allocate a minimum amount of land needed to manage waste arisings during the plan period. Such a close fit approach to identifying the quantity of land required is overly prescriptive and does not comply with Government guidance. The combined infrastructure requirements were considered to be in excess of 10Ha using the mid-range forecast, however it was acknowledged that these requirements would increase significantly should the higher range forecasts prove to be correct and/or substantial amounts of waste are imported for recovery. The provision being made at Coypool is 6Ha and the provision at Ernesettle is 8Ha.

Consequently two sites for strategic facilities were identified and both sites were considered likely to be required to some extent or another. The two site approach would

- ensure there is sufficient capacity to meet future needs
- enable competition to ensure that any solutions are value for money

- allow for different waste streams, such as commercial and industrial
- allow for the flexibility necessary to adapt to new technologies
- give a degree of certainty over the short term
- give flexibility over the long term i.e. to 2021 and beyond

The site identified at Coypool had few constraining factors, however there were delivery difficulties associated with the site. The site was not in the Council's ownership, the Council had been in negotiation with the various owners of the land at Coypool for some time. Negotiations had been complicated by the number of landowners, there are potential other uses for other parts of the site, and the site was still in use by a primary industry and therefore unlikely to be delivered in the immediate future. However the Council was pursuing the purchase of this site with vigour, and negotiations, as well as other site investigation studies were still ongoing. The site however was at that time considered to be available and the landowner (Imerys) who occupied the site supported the allocation of the site for Strategic waste facilities.

Both sites were therefore allocated as being capable of providing a range of waste management facilities which could include the following: recycling and composting; waste transfer; mechanical and biological treatment; combustion with energy recovery (energy from waste); advanced thermal treatment (gasification, pyrolysis); publicly accessible recycling facilities.

In terms of the site selection process leading to the choice of Ernesettle and Coypool, as sites for strategic level facilities, the Inspector's Report following the public examination of the City's waste DPD stated the following ***"there is no dispute that the Council has carried out a thorough and exhaustive search for suitable waste management sites. The evidence base in this respect has been prepared in accordance with Government good practice. It is unchallenged in the sense that there is no dispute over the waste management strategy proposed for the city, and no alternative sites have been proposed to meet the requirements of the strategy"***

The Rationale for dealing with proposals on sites that are not allocated

Policy W7 and W8 of the Waste DPD help to provide a positive planning policy framework addressing Core Strategy objective 13 (5).

PPS 10 indicates that planning applications for sites that have not been allocated or identified in a Development Plan Document as suitable for new or enhanced waste management facilities should be considered favourably when consistent with national policies and the waste planning authority's Core Strategy. Plymouth's Core Strategy provides a plan-led context for the identification of sites for both strategic and local waste facilities. It is however recognised in the Waste DPD, that it is not appropriate to plan for a too close a fit between need and sites and so there is a requirement for flexibility. The Core Strategy recognises the need to strike a balance between providing for certainty, but also for flexibility and market delivery and choice.

Policies W7 and W8 are necessary and in accordance with Government guidance by providing a decision making framework to manage the impact of waste development proposals. As previously stated the waste site assessment evidence base was considered robust in relation to the identification of the allocated strategic waste management sites. However this does not preclude the potential for acceptable alternative waste management sites to come forward during the plan period, particularly where there would be a change in circumstance.

Sites offered by SWDWP in the procurement process

At the commencement of the PFI procurement in late 2008, the SWDWP made all prospective bidders aware of the nearby waste sites allocated in the Plymouth Waste DPD and Devon Waste Local Plan. Furthermore SWDWP formally offered the Ernesettle⁴ strategic waste site to all bidders for their solutions.

The SWDWP further considered the potential of the Coypool site but was unable to take this site forward into the PFI procurement, due to complicated freehold and lease arrangements of the Coypool site which was divided into 3 parcels of land owned between Imerys and a private owner, with the latter ownership being leased to Imerys until 2016 for their china clay operations. In addition it was highlighted that to access the area of the Coypool site identified for waste management purposes it was necessary secure access rights over the other two parcels of land and secure an improved off-site access route to the adopted highway.

Plymouth City Council concluded that the complicated ownership and business interests of the land-owners, alongside challenges in securing a suitable access to the site, were such that there would be on-going delay or complete failure to deliver the site and that this delay would not be consistent with the needs of Plymouth City Council in securing an urgently needed new waste treatment solution. Further, Plymouth City Council considered options to acquire the site by Compulsory Purchase Order, but concluded that such a course of action would be likely to be prohibitively expensive, difficult to justify legally given available alternative sites and would again fail to meet the timescales required to deliver a solution for SWDWP. Nevertheless SWDWP communicated Plymouth City Council's background knowledge with respect to the Coypool strategic site to allow bidders to pursue this site if they felt it appropriate.

Recognising that CHP was becoming a major factor Plymouth City Council commissioned a report by Entec⁵ early in 2008 in order to review the potential for CHP of an Energy from Waste plant at both Ernesettle and Coypool. The report sought to identify possible heat users within a sensible distance of the site. One element of the report's summary states the following *"...the most likely site to match heat output from the EFW is the Devonport Dockyards. No other single site would appear to be exactly matched to the heat supply output from either EFW facility."*

The Applicant's (MVV) Site Search

MVV commenced its search for a suitable site to develop an EFW CHP facility in late 2008, in the early stages of the bidding process for the SWDWP waste management contract.

Initially, MVV focussed on the Coypool and Ernesettle sites allocated for waste infrastructure development including energy recovery in the Waste DPD. Both were inspected in early 2009 following the inclusion of MVV in the SWDWP bidders list. MVV confirmed the conclusions of the SWDWP on the availability and deliverability of Coypool in its consideration of potentially available sites. It is clear that MVV made approaches to the agent for the Coypool land owner; however it is public knowledge that the landowner is unwilling to sell the land to MVV as a waste management site.

During its assessment of the suitability of the Ernesettle site for the development of an EFW CHP Facility, MVV had identified a number of potential difficulties in developing the site. One such difficulty is that the site is not close to a existing significant potential heat or steam users and that there were engineering, environmental and significant cost implications of connecting the site to existing developments that could use heat or steam.

⁴ The site at Ernesettle was allocated in the adopted Waste DPD, in PCC ownership and it had been demonstrated that the site was capable of accommodating an Energy from Waste plant.

⁵ Waste Management Services PFI Contract, Review of EFW-CHP Potential, PCC

During January 2009, MVV looked for an alternative site to Ernesettle. At this time, the site at North Yard, HMNB Devonport (North Yard), was suggested by the MOD. **This site had not been available at the time that Plymouth City Council was assessing potential alternative sites for allocation in the Waste DPD, which occurred from approximately 2005 - 2008.** During the bidding process the MOD had undertaken the Defence Review and had rationalised its operations in recent years, a process that included disposal of land. In the drive to reduce operating costs, carbon emissions and sustain employment it is clear that the MOD realised the potential that an energy from waste with combined heat and power facility could have in making an important contribution to the creation of a sustainable business, to saving jobs and creating new employment opportunities. As a consequence Sita (the third bidder) was able to develop a proposal for a site in South Yard but the potential of this site was limited and there were problems with managing the access for laden waste delivery vehicles to this site and Sita subsequently withdrew from the bidding process. MVV held negotiations with the MOD for an Agreement to Lease the North Yard site during 2009/10.

Throughout the bidding process in 2009 and 2010, MVV developed its proposals for the SWDWP waste management contract, which initially included alternative proposals to develop an EfW CHP Facility at the Ernesettle site, or at North Yard. In February 2010 MVV initiated its public consultation (when it was still one of two bidders for the SWDWP contract) and held public exhibitions at Ernesettle and at Weston Mill, close to North Yard. These exhibitions included plans for its outline proposals for development of an EfW Facility at the Ernesettle site, as well as its proposals for North Yard, Devonport.

Following the public consultation, MVV reviewed its proposals for both sites, and in March 2010 announced that it would be concentrating its proposals solely on the North Yard, HM Naval Base Devonport site. It is clear that MVV's choice of site was made on the basis of the positive attributes of the site for the development of the specific type of EfW CHP Facility that MVV was proposing to build and on the basis of a consideration of reasonable alternative options. MVV concluded that the main advantage of the North Yard site was its location in the Dockyard which meant that heat and steam could be supplied direct to the Naval Base as soon as the plant became operational, thus significantly improving the plant's energy efficiency and cost effectiveness for SWDWP and improving the sustainability of the Dockyard.

Policies W7 and W8 in the Waste DPD ensure flexibility and exist primarily to cater for the exact set of circumstances that is faced by the application being put forward on a non-allocated site.

Two final tenders were submitted to the partnership in November 2010, both proposing an energy from waste facility. MVV's proposal for the site at North Yard, Devonport and Viridor's proposal for a site at New England Quarry near Lee Mill.

The partnership's Joint Committee met in late December to consider the tender evaluation results, recommending the preferred bidder's solution to DEFRA, who is supplying £95m worth of PFI (Private Finance Initiative) credits towards the cost of the project. This was then considered by DEFRA, who confirmed that the partnership could appoint MVV as the preferred bidder. The SWDWP then announced that MVV's proposal at North Yard had been selected as the preferred bidder to provide a solution to treat the partnership's residual waste. MVV then submitted a planning application for the site at North Yard in May 2011.

The applicant's consideration of alternative sites

The Geographical Area of Search (for the applicant's consideration of alternatives)

A key planning objective of national planning policy for waste management (PPS10) is that regional planning bodies and planning authorities should deliver planning strategies that “provide a framework in which communities take more responsibility for their own waste” and “enable waste to be disposed of in one of the nearest appropriate installations”. This policy framework suggests that a facility to manage waste generated in the SWDWP area should therefore be located within the SWDWP administrative area.

Regional Planning Policy also suggests that the relationship between the location of waste management facilities and the main urban areas they serve is an important consideration in identifying suitable locations and this has been discussed in the policy considerations chapter (cross reference). However, the government's intention to abolish regional planning policy, and the relevance of that stated intention was taken into the consideration of alternative sites.

It can be seen from the SWDWP Final Business Case report⁶ that within the SWDWP area, the city of Plymouth has the greatest population and population density and therefore generates the greatest concentration of waste than in any other Partnership authority area.

As part of the preparation of the Joint Municipal Waste Management Strategy (JMWMS), the partnership authorities considered alternative spatial/geographical options for locating a facility to deliver the contract. This process included detailed modelling of the planning, environmental, technical and economic criteria. The Partnership concluded that a single facility, located within the administrative boundary of Plymouth, would provide the greatest opportunity to develop Combined Heat and Power potential. This would enhance the efficiency of the facility and reduce its environmental footprint and offer the most sustainable solution.

The relevant waste management strategy and regional planning policy directs the location of strategic waste management facilities to be within the main urban area that it serves. It is however correct given the Government's intention to abolish regional planning policy for the alternative sites assessment to consider sites located outside Plymouth's administrative area, within the Partnership area in the event that a site outside the City can be shown to offer a more sustainable solution.

It was necessary therefore for the applicant to consider the allocated sites in Plymouth's Waste DPD and Devon County's Waste Local Plan. Torbay Council adopted its Local Plan in 2004, but has not allocated any specific sites for strategic waste management use such as an Energy from Waste plant. In addition to these sites it was necessary for the applicant to also consider the other sites that were identified in the 2005 Entec Report as having some potential to accommodate either strategic and/or local waste management facilities. This was particularly necessary given that some sites had been discarded due to their proximity to dwellings. Furthermore additional sites were also included that had been identified as maybe having potential to accommodate an Energy from Waste Plant. **All of the sites to be included in the alternative sites assessment chapter were agreed with PCC in advance of the submission of the planning application during the pre-application process.** The assessments of these sites can be found in the applicant's regulation 19 response⁷.

⁶ Procurement of Waste Treatment Services, Final Business Case, January 2011 (Redacted Version)

⁷ Planning Application and Environmental Statement Further Information, Volume I Main Text and Appendices, Appendix D.5.1: Revised ES Appendix 5 'Alternatives to the proposed development' & Appendix D.5.2: Revised ES Appendix 5 'Alternative Sites Appraisal'

Alternative Sites Assessment Methodology

The applicant's assessment methodology was based on the same environmental, economic and availability evaluation criteria that was adopted in the Entec Report (2005), but updated to take into account relevant new planning policies, including criteria to assess the suitability of sites for deliverable CHP.

Since the Entec report (2005) was prepared, Planning and Climate Change Supplement to Planning Policy Statement 1 (2007) has been published. Paragraph 24 of the supplement sets out a number of criteria that local authorities should take into account when selecting land for development. One of the criteria given is:

“the extent to which existing or planned opportunities for decentralised and renewable or low-carbon energy could contribute to the energy supply of development”

The ability of sites to contribute to decentralised and renewable low-carbon energy was not considered as part of the site identification and assessment criteria used in the Entec(2005) report and given updated national policy, it was considered that were the authority undertaking a site search today, relevant criteria should form part of the assessment.

In order to address this, potential sites were assessed with regard to potential to contribute to the provision of decentralised and low-carbon energy. In the case of sites for waste management development, this would most likely relate to the use of heat and power produced from waste material and the potential for the use of CHP.

Criteria that impact on a site's ability to provide CHP were therefore agreed between the applicant and PCC during the pre-application process and this formed part of the assessment.

Amenity Criteria

In reviewing the Entec (2005) report criteria, the applicant addresses the addition of a further criterion to establish the most suitable sites from the list of sites identified as having potential for strategic facilities. The additional criterion considered the proximity of dwellings within 250m of identified sites which was alluded to in the following publication *“Planning for Waste Management Facilities: A Research Study”* (ODPM, 2004). It is important to note that the 250m distance from sensitive receptors was not applied as an exclusionary threshold in the Entec study e.g. it was not a criterion that automatically excluded a site from consideration. Clearly a sites ability to house a large EFW might be complicated by the existence of dwellings in close proximity but this would need to be assessed on a case by case basis. On the other hand of course it can be seen as a benefit given that the potential for delivery of a CHP/district heating scheme might be improved by the close proximity of a large number of dwellings. It should be noted that the site allocated at Ernesettle in the city's Waste DPD has a number of residential properties within 250m.

The Waste DPD deals with matters of principle and strategy, e.g. whether in principle a site is suitable for a particular type of development. This normally means assessing whether there are any “showstoppers” e.g. those things that might prevent the development from taking place at all. It also gives the opportunity to highlight issues that may need to be explored at later stages. The details of a development and importantly how it might respond to any issues raised at the DPD “in principle” level, are dealt with at planning application stage. This is necessarily a much more detailed stage at which the design and operation of a development will be closely scrutinised in order to ensure that the development is acceptable, and that appropriate mitigation measures, if required can be put in place.

Clearly when seeking to allocate sites capable of providing a development of this scale it is quite right to consider the proximity of sensitive receptors as the guidance in PPS 10 stipulates. Applying a threshold (250m in the case of site search exercise carried out for the preparation of the DPD) as a guide from potential sites is a sensible approach in helping to evaluate the

potential problems that may occur. The threshold of course is a guide and individual site circumstances such as topography for example will also be a factor in considering whether a site has the potential to accommodate such a facility without causing demonstrable harm to sensitive receptors. The 250m guide is based on the recognition that such facilities are known to generate noise and vibration and are large in scale.

In the 'search for sites' process that informed the allocation of the site at Ernesettle in the City's Waste DPD, additional investigations of the site's potential to accommodate an EFV were carried out. This was felt necessary given the fact that sensitive receptors were located within 250m and the authority needed to be sure that the site was capable of delivering a facility that would not cause demonstrable harm to those receptors. The Site was subsequently adopted in the Waste DPD as the Planning Inspector at the public examination concluded that, with regard to the site's ability to accommodate an Energy from Waste plant he had *"no doubt that there is the potential to achieve a high quality design that could produce an iconic building for the Ernesettle site."*

The Applicant's Original Alternative Sites Assessment (submitted in May 2011)

It was felt that the applicant's original alternative site assessment was not adequate for the following reasons:

- There was a lack of evidence/analysis and justification for various elements of the assessment to support a) the grade scored (given that the applicant had graded some elements different to the original Entec Study) and b) the conclusions put forward on Ernesettle and Coypool.
- There was a lack of evidence/analysis to justify the grades scores on other alternative sites
- There was a lack of evidence/analysis provided to justify the choice of site over others.

The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 – Provision of Further Information (regulation 19)

As a result the planning authority, in exercising its powers under regulation 19 of the 1999 regulations, required the applicant to provide further information to address concerns on a number of matters. This included the adequacy of the alternatives studied and reason for the choice of site.

Regulation 19 Response (September 2011)

The applicant in their response to the regulation 19 request submitted a revised 'alternatives to the proposed development' chapter (Environmental Statement chapter 5) and revised 'alternatives sites appraisal' (Environmental Statement Appendix 5).

The revised chapter and appendices answers the regulation 19 questions and therefore the applicant has now provided further analysis and justification for the choice of site and provided additional analysis to justify the grading given on other alternative sites.

In respect of the two allocated sites in the City's Waste DPD, Ernesettle and Coypool, the applicant has now recorded the same grades in their assessment as was recorded in the original Entec study and has also provided further evidence/analysis to support their conclusions put forward on those sites.

Conclusions

The Purpose of the Assessment of Alternatives

As previously stated the purpose of the assessment of alternatives is to test and validate the applicant's choice of site and to ensure that adequate consideration has been given to alternative sites in terms of environmental, economic, social and availability/deliverability criteria and to enable a conclusion to be reached as to whether there may be more appropriate alternatives.

It is clear that the applicant's overriding factor for their choice of site is its potential to deliver an EFW CHP facility that could be operational at the beginning of the SWDWP contract, so that the benefits of EFW CHP could be delivered in the short, medium and long term and the efficiency and benefits of the plant are maximised. The 'consideration of alternatives' chapter clearly demonstrates that the site at North Yard has the greatest potential for maximising CHP and the benefits that this provides. Furthermore it is acknowledged that in order to maximise the efficiency of Energy from Waste plants as national policy and emerging policy indicates, the provision of CHP, if achievable is of significant benefit. Locating an Energy from Waste plant close to a significant heat user or users substantially increases the potential for CHP.

The alternative sites assessment clearly demonstrates that the site offers the greatest opportunity to deliver an EFW with CHP that:

- maximises the plants efficiency,
- maximises the plants heat potential thus minimising waste heat,
- maximises the benefits to the environment through significant carbon savings,
- delivers value for money for the residents of SWDWP area,
- maximises the potential to retain existing employment opportunities in the Dockyard by making it more competitive and the potential for a wider district heating scheme beyond the Dockyard
- creates new employment opportunities, apprenticeships and skills for people locally

The applicant also demonstrates that the most appropriate location for an Energy from Waste plant within the partnership area would in the first instance be within the urban area of Plymouth given that the City has the largest population, population density and produces the most waste in the partnership area and that this accords with the development plan. Although the draft RS for the South West has not been adopted, it has been a consideration in the determination of planning applications. However, its weight has been reduced by Government proposals to revoke RS's through provisions made in the Localism Act. However, the evidence upon which the policies were based is still relevant and robust. **This evidence therefore still demonstrates the need for an approach to new facilities related to the principal urban areas which the proposal at North Yard would provide for.**

The applicant **in agreement with PCC** considered a substantial number of alternative sites within the Partnership area and an appropriate methodology for the assessment to ensure that adequate consideration has been given to alternative sites in terms of environmental, economic, social and availability/deliverability criteria.

In relation to the consideration of the allocated sites in the City's Waste DPD the applicant demonstrates that every attempt was made to acquire Coypool both by the City Council and MVV. PPS 10 in paragraph 18 under the heading of 'identifying land for waste management facilities' states the following:

“waste planning authorities should:

- Avoid unrealistic assumptions on the prospects, for the development of waste management facilities, or of particular sites or areas, having regard in particular to any ownership constraint which cannot be readily freed, other than through the use of compulsory purchase powers.”*

At the time of the production of the Waste DPD the landowner/occupier of the site (Imerys) supported the allocation of the site and the purchase of the site was being pursued. Subsequently however circumstances have changed and Plymouth City Council concluded that the complicated ownership and business interests of the land-owners, alongside challenges in securing a suitable access to the site, were such that there would be on-going delay or complete failure to deliver the site and that this delay would not be consistent with the needs of Plymouth City Council in securing an urgently needed new waste treatment solution.

The City Council considered options to acquire the site for the provision of an energy from waste plant by Compulsory Purchase Order. However the City Council concluded that such a course of action would be likely to be prohibitively expensive, difficult to justify legally given available alternative sites for the delivery of an energy from waste facility and would again fail to meet the timescales required to deliver a solution for SWDWP.

It is absolutely appropriate to consider land availability as part of the alternative sites assessment as the Council's own site search also, quite properly, had regard to land availability. It is instructive to have regard to the definition of 'available' set out in PPS3 and DCLG's Strategic Housing Land Availability Practical Guidance. Paragraph 39 of the latter document provides: *“A site is considered available for development, when, on the best information available, there is confidence that there are no legal or ownership problems, such as multiple ownerships, ransom strips, tenancies or operational requirements of landowners. This means that it is controlled by a housing developer who has expressed an intention to sell. Because planning applications can be made by persons who do not need to have an interest in the land, the existence of a planning permission does not necessarily mean that the site is available. Where problems have been identified, then an assessment will need to be made as to how and when they can realistically be overcome.”* This definition of available endorses precisely the applicant's approach in their 'consideration of alternatives'.

Nevertheless it has to be acknowledged that the applicant demonstrates that there is greater potential to maximise CHP at the North Yard site which is the applicant's justification for the choice of site.

With regard to the Ernesettle allocation, the applicant indicates that there are a number of constraints to overcome and the applicant again demonstrates that there is greater potential to maximise CHP at the North Yard site which is the applicant's justification for the choice of site.

The consideration of the application will discuss the impacts of the proposal on whom or what and their significance and if they can be adequately mitigated. Whilst on individual elements of the assessments one could deduce that site A is better than site B the applicant has appropriately considered sites as a whole in terms of positive and negative impacts on the environment, socially and on the economy using relevant criteria agreed prior to undertaking the assessment with PCC.

It has to be concluded therefore that the applicant has sufficiently justified their choice of site and adequately considered alternative sites.

Appendix I

Date	Document	Comments
July 2005	Entec Study – Search for sites	(North Yard site was unavailable and therefore not considered or evaluated)
April 2007	Adopted Core Strategy (identified 5 general areas that the Waste DPD should explore)	Identified 5 general areas with potential to accommodate strategic waste management facilities and that these areas should be explored in the production of the Waste DPD in order to identify sites to allocate. Areas identified: 1. Coypool 2. Chelson Meadow (existing waste management facility) 3. Moorcroft Quarry 4. Prince Rock 5. Land West of Ernesettle
August 2007	Waste DPD submitted to the Secretary of State	Coypool and Ernesettle are proposed sites for strategic waste management facilities (which include energy from waste)
February 2008	Waste DPD Public Examination	
March 2008	Inspector publishes his Inspector's Report on the Waste DPD	Inspector declares the document sound with some amendments
April 2008	Adoption of Waste DPD	Coypool and Ernesettle allocated for strategic waste management facilities (which can include energy from waste)
April 2008	Entec Study – Waste Management Services PFI contract: Review of EFW-CHP Potential.	The study states <i>“the most likely site to match heat output from the EFW is the Devonport Dockyards. No other single site would appear to be exactly matched to the heat supply output from either EFW facility”</i>
October 2008	Outline Business Case Approved by DEFRA , procurement process starts	
January 2010	Sita withdraws from the procurement process – Sita was proposing a solution at South Yard	MVV & Viridor two remaining bidders (MVV considering Ernesettle and North Yard. Viridor considering New England Quarry)
March 2010	MVV announce their intention to focus on a single bid proposal for an Energy from Waste Plant at North Yard and not Ernesettle.	

Date	Document	Comments
January 2011	MVV selected as preferred bidder	
May 2011	MVV submit Planning Application for an Energy from Waste Plant at North Yard	
July 2011	Plymouth City Council Planning Authority exercises powers under regulation 19 of the 1999 regulations, requiring the applicant (MVV) to provide further information.	This included the adequacy of the alternatives studied and reason for choice of site
September 2011	MVV submit regulation 19 response	

APPENDIX 4

EfW plant –land at North Yard HMNB Devonport 11/00750

Demonstrating the Flood Risk (PPS25) Sequential Test for Planning Applications

**Energy from Waste Combined Heat and Power Facility North Yard,
Devonport Planning Application Ref 11/00750/ful**

Stage 1 – Strategic Application & Development Vulnerability

(The answer to both of the following questions must be yes in order for the sequential test to be adequately demonstrated)

Question 1.1

Has the Sequential test already been carried out for this development at development plan level? If yes, reference should be provided for the site allocation and Development Plan Document (DPD) in question.

Answer: No

The site of the proposed Energy from Waste (EfW) Combined Heat and Power (CHP) Facility at North Yard, Devonport was not allocated in Plymouth City Council's Waste Development Plan Document (DPD) which was adopted in April 2008. The Waste DPD however does contain an unallocated sites policy (W7) which in accordance with Planning Policy Statement 10 provides a positive policy framework to allow for the potential development of waste management facilities on other sites that may come forward during the course of the plan period.

Question 1.2

Is the flood risk vulnerability classification of the proposal appropriate to the Flood Zone in which the site is located according to tables D1 and D3 of PPS25? The vulnerability of the development should be clearly stated.

Answer: Yes

The significant majority of the site is in Flood Zone 1, except for a small section (less than 5%) of the site along the proposed access road which falls in Flood Zone 2.

The proposed EFW CHP facility is classified as 'less vulnerable' development, whilst the access road is classified as 'essential infrastructure' in accordance with PPS25, Table D.2. Table D.3 indicates that 'less vulnerable' and 'essential infrastructure' developments are considered appropriate in either Flood Zone 1 or Flood Zone 2.

Stage 1 Conclusion

The application must now be considered under the tests set out in stage 2 and 3 given that the answer to question 1.1 is 'no'.

Stage 2 – defining the evidence base

Question 2.1

State the geographical area over which the test is to be applied.

Question 2.2

If greater or less than the district boundary justify why the geographical area for applying the test has been chosen.

Question 2.3

Identify the source of reasonably available sites, either:

- **Background/evidence base documents (state which), or if not available**
- **Other sites known to the LPA that meet the functional requirements of the application.**

All three questions are dealt with together as follows:

The application proposes an EFW CHP facility. The facility is being commissioned to manage municipal solid waste from the South West Devon Waste Partnership Area (SWDWP). The geographical area over which the test is to be applied has thus included the SWDWP area which includes South Hams District; Torbay Borough; Teignbridge; West Devon Borough and Plymouth City.

Environment Agency guidance state that in some circumstances it may be appropriate to expand the search area beyond the LPA boundary for uses that have a sub-regional, regional or national market. It is clear that the whole of Devon would not be an appropriate geographical area within which to assess a proposal that is proposing to serve the waste management requirements of the South West Devon area and therefore all of the sites for strategic waste management facilities identified within the Devon Waste Local Plan would not be appropriate.

Potential alternative sites are sourced from the Plymouth City Council Waste Development Plan Document (Adopted 2008) and the Devon County Council Waste Local Plan (Adopted 2006). Only those allocated as being potentially suitable for an EFW facility are therefore considered:

Plymouth City Council Waste Development Plan Document, Adopted 2008

Proposal W1 – Coypool China Clay Works;
Proposal W2 – Land West of Ernesettle Lane.

Devon County Council Waste Local Plan, Adopted 2006

SH17 – New England Quarry (South Hams)
SH52 – Wrangaton (South Hams)
TE13 – Heathfield Landfill Site (Teignbridge)
TE51 – Heathfield Industrial Estate (Teignbridge)
WD07 – Crowndale, Tavistock (West Devon)

Torbay Council adopted its Local Plan in 2004, but has not allocated any specific sites for strategic waste management use such as an EFW.

In addition to these sites it is also necessary to consider alternative sites that had been identified on a 'short list' in an evidence base study carried out by Entec⁸ for Plymouth City Council in 2005, which informed the development and subsequent adoption of the City's Waste Development Document in 2008.

In addition to this it was also necessary to consider some additional sites that had been identified since 2005 as having some potential for CHP. The list of sites therefore to be considered were agreed with the applicant and these sites have been considered as alternatives and are presented in the applicant's response to the regulation 19 request in Volume 1, Appendix D.5.1 & Appendix D.11.1.

The EA guidance now stipulates that the Local Planning Authority should now consider whether all the alternative sites identified and presented in the environmental statement meet the functional requirements of this application and whether they are considered to be 'reasonably available' alternative sites in order for them to progress to stage 3; applying the Sequential Test.

The following table will therefore identify the sites that should be discounted at this stage

Name & Location of Site (including Source)	Meets Functional Requirements of the Application (Energy from Waste with CHP)	Reasonably Available
Proposal W1 Coypool (Plymouth Waste DPD)		No , Site in multiple ownership. Despite supporting the allocation of the site for strategic waste management use in the production of the City's Waste DPD, the landowners are now not willing to sell site for Waste management purposes. PCC considered options to acquire

⁸ Appendix B Table 2, Plymouth Waste Development Plan Document: Search for Potential Waste Management Sites, ENTEC, July 2005.

		site by compulsory purchase order, but concluded that such a course of action would be likely to be prohibitively expensive, difficult to justify legally given available alternative sites and would fail to meet the timescales required to deliver a solution for SWDWP.
WD07 – Crowndale, Tavistock (Devon Waste Local Plan)	No , Devon Waste Local Plan allocation describes potential site uses as “Continued use as a Recycling Centre and Waste transfer station. There maybe potential for the introduction of a MRF, and a small energy from waste plant or MBT/BMT facility, together with in-vessel mixed/green waste composting” Site is also within an AONB and should be discounted according to the Alternative Sites Assessment methodology. (see appendix D.5.1: Revised ES chapter 5 ‘alternatives to the proposed development’ of the applicant’s response to the regulation 19 request)	
E14 – Plymbridge Industrial Estate (ENTEC Study)	No , Site has been developed since 2005 and has planning consent for other development (known as Sisna Park)	No , Site has been developed since 2005 and has planning consent for other development (known as Sisna Park)
E21 – Water Treatment Works, Glacis Park, Tavistock Road (ENTEC Study)		No , Site is part of Glacis Park Proposal for a residential led mixed use development in the Plymouth City Council Pre-submission Derriford & Seaton AAP (Feb 2011), which forms a key part of the delivery of the City’s vision
E47 – Prince Rock Depot (ENTEC Study)	No , No specific site identified. Site is currently occupied by PCC as a depot. Existing uses in operation	No , No specific site identified. Site is currently occupied by PCC as a depot. Existing uses in operation
E50 – Land at Estover Gate (ENTEC Study)	No , Existing building and unsuitable site size (1.85ha.)	
E52 – Land at Burrington Industrial Estate (ENTEC Study)	No , Existing building and unsuitable site size (1.12ha.)	

E53 – Employment Land Commitment Ernesettle (ENTEC Study)	No , Site Developed for motorcycle test centre	No , Site Developed for motorcycle test centre
E55 – Southway Redevelopment Area (ENTEC Study)	No , Development with planning permission and site currently under construction	No , Development with planning permission and site currently under construction
E57 – Plymouth Airport Redevelopment (ENTEC Study)	No , Site has outline planning permission for residential development	No , Site has outline planning permission for residential development
E58 – Forder Valley (ENTEC Study)	No , Sites identified as proposals for a residential led mixed use development at Seaton Neighbourhood and commercially led mixed use development in the Plymouth City Council Pre-submission Derriford & Seaton AAP (Feb 2011), which forms a key part of the delivery of the City's vision	No , Sites identified as proposals for a residential led mixed use development at Seaton Neighbourhood and commercially led mixed use development in the Plymouth City Council Pre-submission Derriford & Seaton AAP (Feb 2011), which forms a key part of the delivery of the City's vision
Langage (Other site identified as having CHP potential)		No, No specific site identified. Langage allocated within South Hams Core Strategy as an employment site of regional significance. Langage was identified as a potential site during the production of the Devon Waste Local Plan 2006 however the Inspector concluded that he attached considerable weight to the regional employment significance of the site and that the case for inclusion of a strategic waste management site had not been established. This position has not changed.

Question 2.4

State the method used for comparing flood risk between sites, either:

- **Environment Agency Flood Map, or**
- **An up to date Strategic Flood Risk Assessment (SFRA) held by the LPA, or**
- **Another map or sources of flooding information not listed (state which).**

The Environment Agency Flood Map (Flood Zones 2 and 3) has been used as the method for comparing flood risk between the sites. Paragraph 4.27 of PPS25 Practice guide states that “it is the responsibility of the developer to assemble the evidence for their application to allow the LPA’s planning officer to carry out the sequential test”. The applicant’s flood risk assessment which contains extracts from the flood map for each site together with a map identifying the site location can be found in the applicant’s response to the regulation 19 request in Volume 1, Appendix D.11.1.

Stage 3 – applying the Sequential Test

Question 3.1

State the name and location of the reasonably available site options being compared to the application site.

Question 3.2

Indicate whether flood risk on the reasonable available options is higher or lower than the application site. State the flood zone or SFRA classification for each site.

Question 3.3

State whether the reasonably available options being considered are allocated within the development plan. Confirm the status of the plan.

Question 3.4

State the approximate capacity of each reasonably available site being considered. This should be based on:

- The density policy within a Local Development Document, and
- Past performance in this respect.

Question 3.5

Detail any constraints to the delivery of identified reasonably available options; for example, availability within a given time period or lack of appropriate infrastructure.

All these questions are dealt with together in the following table and supporting text.

Name and Location of the reasonably available sites that meet the functional requirements of the application (not discounted during stage 2)	Flood Zone: (Higher Risk (H) Lower Risk (L) Approx. Equal Risk (=))	Allocated Within Development Plan as suitable for EFW	Approx Capacity ⁹ of site (if known)	Constraints to delivery ¹⁰
North Yard, Devonport (Planning Application)	Development site Predominantly Flood Zone 1, except for a small section (< 5%) along proposed access road within Flood Zone 2. Proposed mitigation will raise levels to ensure entire site is within Flood Zone 1.	Not allocated	5Ha	Proximity to dwellings/SPA/SAC/biodiversity network feature
Proposal W2 Land West of Ernesettle Lane (Plymouth Waste DPD)	Flood Zone 1 (L)	Yes, Proposal W2 of the Adopted Plymouth Waste DPD	8Ha	Proximity to dwellings, RNAD Explosive Arc (yellow), RNAD explosive Arc (purple), Greenfield site, CHP potential low as Approx 2.5Km from significant heat user and a number of severe land ownership/engineering/environmental constraints along route i.e. required to cross A38 and railway line.
SH17 – New England Quarry (Devon Waste Local Plan)	Predominantly flood Zone 1 but peripheral parts of the site within Flood Zones 2 and 3. Planning application for New England Quarry also	Yes, within Adopted Devon County Waste Local Plan	19.5Ha	Partly within County Wildlife Site, Ancient Woodland, access, Impact on Designated landscapes, CHP potential low as between 2km and 5km from significant heat user and some moderate land ownership /engineering/environmental constraints along route i.e. route was cross small tributary of River Yealm.

⁹ The wording of the standing advice document refers to 'density policy'. This is taken to relate to residential development. Therefore the capacity of the site is recorded here is more appropriately related to the site's ability to accommodate an EFW CHP facility.

¹⁰ The wording of the standing advice document states "constraints to delivery include: availability, policy restrictions, physical problems or limitations, potential impacts of the development, and future environmental conditions that would be experienced by the inhabitants of the development"

Name and Location of the reasonably available sites that meet the functional requirements of the application (not discounted during stage 2)	Flood Zone: (Higher Risk (H) Lower Risk (L) Approx. Equal Risk (=))	Allocated Within Development Plan as suitable for EFW	Approx Capacity ⁹ of site (if known)	Constraints to delivery ¹⁰
	includes section of access road through Flood Zones 2 and 3 to east of allocated site. (H)			
SH 52 – Wrangaton (Devon Waste Local Plan)	Flood Zone 1 (L)	Yes, within Adopted Devon County Waste Local Plan	4.7Ha	Size, access, proximity to Dartmoor National Park, CHP potential unlikely as approx. more than 5km from significant heat user
TE13 – Heathfield Landfill Site (Devon Waste Local Plan)	Predominantly Flood Zone 1 but western tip Flood Zone 2 (=)	Yes, within Adopted Devon County Waste Local Plan	92.9Ha	Partly within County Wildlife Site, Archaeology, PROW, Distance from Strategic Road Network, Access, Site ownership, CHP potential low as approx. More than 5km from significant heat user and approx. 2km away from Heathfield Industrial Estate and a number of severe land ownership, engineering and environmental constraints between along route i.e. route would need to cross River Teign and A38
TE51- Heathfield Industrial Estate (Devon Waste Local Plan)	Predominantly Flood Zone 1 but north eastern tip Flood Zone 2 (=)	Yes, within Adopted Devon County Waste Local Plan	10.4Ha	Access and proximity to dwellings, partly within County Wildlife Site, archaeology,
E01 - Chelson Meadow (ENTEC Study)	Predominantly Flood Zone 1. Small area in South West corner in Flood Zone 3 but benefiting from flood defences (=)	No , Part of Site allocated within Plymouth's Adopted Waste DPD. Not Allocated as potential for EFW (Proposal W4)	12Ha	Available footprint not big enough for EFW CHP facility, relocation of other strategic waste management facilities, Some moderate landownership/engineering/environmental constraints along route for any potential CHP connections
E02 – Moorcroft Quarry (ENTEC Study)	Flood Zone 1 (L)	No , Allocated for the sustainable management of	6Ha	Access, Major Aquifer. Limestone from Hazeldene Quarry is still processed within Moorcroft and will continue to be so for the foreseeable future. Construction and Demolition (CandD) waste (sometimes

Name and Location of the reasonably available sites that meet the functional requirements of the application (not discounted during stage 2)	Flood Zone: (Higher Risk (H) Lower Risk (L) Approx. Equal Risk (=))	Allocated Within Development Plan as suitable for EFW	Approx Capacity ⁹ of site (if known)	Constraints to delivery ¹⁰
		construction and demolition waste. Not allocated as potential for EFW (Proposal W3 Adopted Plymouth Waste DPD.		known as inert waste) is already imported into Moorcroft Quarry from a variety of development projects in and around the City. The CandD material is processed on site into recycled aggregate and re-used in construction projects in the area. Site therefore not reasonably available
E07 – Land off St.Budeaux By-Pass (ENTEC Study)	Predominantly Flood Zone 1. Small area in south west corner in Flood Zone 3 (H)	No	6.6Ha	Greenfield, proximity to dwellings, access, CHP potential low as approx. 2km from significant heat user with some moderate land ownership, engineering and environmental constraints along route. i.e. required to cross railway line.
E19 – British Gas Site, Breakwater Road (ENTEC Study)	Predominantly Flood Zone 1. Western flank appears adjacent to, possibly within, Flood Zone 3. Part of Access road within Flood Zone 3 (=)	No	2.7Ha	Access, Site importance for marine employment uses, CHP potential low as approx. 2.5km from significant heat user and some moderate land ownership/engineering/environmental constraints along route i.e. requirement to cross A379 dual carriageway.
E60 – Agaton Farm, Ernesettle (ENTEC Study)	Flood Zone 1 (L)	No	12Ha	Greenfield, Proximity to dwellings, site on prominent ridgeline, abuts Scheduled Ancient Monument, Access through residential area, CHP potential low as approx. 2.5km from significant heat user with a number of severe land ownership/engineering/environmental constraints along the route i.e. required to cross A38 and railway line. Site in multiple ownership. Site therefore not reasonably available
South Yard Devonport (other site identified as	Flood Zone 1 (L)	No	3Ha	Distance from Strategic Network, proximity to dwellings, access/security as site within HMNB and access route would have to pass through the Naval Base as

Name and Location of the reasonably available sites that meet the functional requirements of the application (not discounted during stage 2)	Flood Zone: (Higher Risk (H) Lower Risk (L) Approx. Equal Risk (=))	Allocated Within Development Plan as suitable for EFW	Approx Capacity ⁹ of site (if known)	Constraints to delivery ¹⁰
having CHP potential)				well as through residential area. Not presently available due to existing buildings and tenancies. Site withdrawn by Sita from the bidding process. Site therefore not reasonably available.

The Environment Agency's standing advice states when detailing constraints to delivery they should include the following: availability, policy restrictions, physical problems or limitations, potential impacts of the development, and future environmental conditions that would be experienced by the inhabitants of the development.

It is therefore correct to consider other constraints to delivery. The planning application at North Yard is for an Energy from Waste Plant with Combined Heat and Power and paragraph 24 of Planning Policy Statement 1 supplement "Planning and Climate Change" sets out a number of criteria that Local Authorities should take into account when selecting land for development. One of the criteria given is:

"the extent to which existing or planned opportunities for decentralised and renewable or low-carbon energy could contribute to the energy supply of development"

In addition to this the attached appendix (appendix1) provides a number of references contained within Planning Policy Statements, the draft National Planning Policy Framework and the Government's review of Waste Policy which emphasise the importance of maximising the potential for renewable or low-carbon energy.

It is appropriate therefore to consider each sites potential to contribute to the provision of decentralised and low-carbon energy. In the case of sites for waste management development, this would most likely relate to the use of heat as well as power produced from waste material.

Clearly the functional requirements of the North Yard application are to deliver an Energy from Waste Plant with Combined Heat and Power and therefore a constraint to its delivery and potential would be distance to a significant heat user, the existence of any infrastructure and the route between the heat source and the heat user.

The applicant has provided an analysis of alternative sites in the Environmental Statement Chapter 5, the revised version can be found in the applicant's response to

the regulation 19 request in Volume 1, Appendix D.5.1. This assessment considers the relative merits, including constraints to delivery and potential for deliverable CHP.

The content of the alternative sites assessment (revised version) forms an essential part of the sequential test as it provides an evaluation methodology (agreed by PCC) for comparing alternative sites, which takes into account a wide range of environmental constraints and planning policy requirements and includes reference to a number of studies carried out on behalf of Plymouth City Council relating to District Energy and potential for EFW-CHP development in Plymouth.

Sequential Test conclusion

Question

Are there any reasonably available sites in areas with a lower probability of flooding that would be appropriate to the type of development or land use proposed?

Conclusion

The tables in stage 2 and 3 together with the applicant's alternatives sites analysis and PCC's EFW & CHP studies show that whilst some sites were identified with a lower probability of flooding they are either **not reasonably available and/or are significantly less suitable for delivering an Energy from Waste plant with combined Heat and Power.**

Furthermore it is important to recognise that the small section of access road falling within flood zone 2 comprises less than 5% of the total area of the proposed development. The mitigation proposed as part of the development will raise levels along this section of access road to ensure that the entire site is located within flood zone 1 post development and ensuring that flood risk elsewhere is not increased. The Environment Agency's response to the application states the following *"the proposals are now considered acceptable provided planning conditions can be included to ensure flood and environmental risks are appropriately managed"*

The planning application therefore passes the sequential test.

Appendix 1

References from relevant National Policy Statements, the draft National Planning Policy Framework and the Government's review of Waste Policy 2011.

Planning Policy Statement: Planning and Climate Change: Supplement to PPS1

This covers the need to consider opportunities for renewable or low carbon energy supply and supporting infrastructure during the planning process.

PPS1 Para 13: 'ensure opportunities for renewable and low-carbon sources of energy supply and supporting infrastructure, including decentralised energy supply systems, are maximised';

PPS1 Para 27 'In considering a development area or site-specific target, planning authorities should pay particular attention to opportunities for utilising existing decentralised and renewable or low-carbon energy supply systems and to fostering the development of new opportunities to supply proposed and existing development..... Where there are existing decentralised energy supply systems, or firm proposals, planning authorities can expect proposed development to connect to an identified system, or be designed to be able to connect in future.....'

The Planning Policy Statement: Planning for a Low Carbon Future in a Changing Climate consultation, which will be a supplement to Planning Policy Statement 1, reinforces this further:

Section LCF1.4 reads:
"Local planning authorities should assess their area for opportunities for decentralised energy. The assessment should focus on opportunities at a scale which could supply more than an individual building and include up-to-date mapping of heat demand and possible sources of supply. Local planning authorities should in particular look for opportunities to secure:
i. decentralised energy to meet the needs of new development;
*ii. **greater integration of waste management with the provision of decentralised energy;***
iii. co-location of potential heat suppliers and users; and,
*iv. **district heating networks based on renewable energy from waste, surplus heat and biomass, or which could be economically converted to such sources in the future.**"*

Planning Policy Statement (PPS) 22, Renewable Energy (August 2004)

Increased development of renewable energy resources is identified as vital to facilitating the delivery of the Government's commitments on both climate change and renewable energy.

Positive planning which facilitates renewable energy developments is seen as contributing to all four elements of the Government's sustainable development strategy (pg 6, The Governments Objectives):

- social progress which recognises the needs of everyone – by contributing to the nation's energy needs;
- effective protection of the environment – by reductions in emissions of greenhouse gases and thereby reducing the potential for the environment to be affected by climate change;
- prudent use of natural resources – by reducing the nation's reliance on ever diminishing supplies of fossil fuels; and,
- maintenance of high and stable levels of economic growth and employment – through the creation of jobs directly related to renewable energy developments, but also in the development of new technologies.

The wider environmental and economic benefits of all proposals for renewable energy projects, whatever their scale, are material considerations that should be given significant weight in determining whether proposals should be granted planning permission (paragraph 1.iv).

Development proposals should demonstrate any environmental, economic and social benefits as well as how any environmental and social impacts have been minimised through careful consideration of location, scale, design and other measures (paragraph 1.viii).

Draft National Planning Policy Framework (NPPF) (July 2011)

The Draft National Planning Policy Framework (NPPF) also emphasises this approach. It states that the 'Government's objective is that planning should fully support the transition to a low carbon economy in a changing climate, taking full account of flood risk and coastal change. To achieve this objective, the planning system should aim to: secure, consistent with the Government's published objectives, **radical reductions in greenhouse gas emissions**, through the appropriate location and layout of new development, and active support for energy efficiency improvements to existing buildings and **the delivery of renewable and low-carbon energy infrastructure**'. It also discusses the delivery of renewable and low-carbon energy and states that '**to help increase the use and supply of renewable and low-carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low-carbon sources**'.

It goes on to state they should 'have a positive strategy to promote energy from renewable and low-carbon sources, including deep geothermal energy', they should 'consider identifying suitable areas for renewable and low-carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources' and '**identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers**'.

Government Review of Waste Policy 2011 (DEFRA) (June 2011)

Paragraph 22 states:

“Government supports efficient energy recovery from residual waste which can deliver environmental benefits, reduce carbon impacts and provide economic opportunities. Our aim is to get the most energy out of genuinely residual waste, not to get the most waste into energy” “and waste can be used to produce renewable energy reducing demand for energy from fossil fuels.

Paragraph 237 states:

“Experience to date with CHP infrastructure has highlighted a potential difficulty in securing long term customers for heat ahead of construction of the plant. Without heat offtake, the lower efficiencies achievable from electricity only generation could waste valuable opportunities to help decarbonise the heat sector. This is a particular opportunity for business, particularly larger firms, through the greater exploitation of CHP for commercial and industrial premises.”

APPENDIX 5

Habitats Regulations Assessment of MVVs proposed Energy from Waste Plant, North Yard, Plymouth

October 2011

Contents	Page
1. Introduction	3
1.1. Background	3
1.2. Methodology used for this Habitat Regulations Assessment	4
1.3. Consultation	4
2. Likely significant effect test	5
2.1. European Sites	6
2.2. Possible effects of the project	9
2.3. Existing Plans and Projects	10
2.4. Test of likely significant effect	11
2.5. Discussion of key issues	16
2.6. Conclusions – Habitat Regulations Assessment – Test of Likely Significant	17

1. Introduction

This document has been produced to determine whether it can be concluded that no significant adverse effect might be occasioned by MVVs project for the development of an Energy from Waste Plant at the North Yard, Plymouth on nearby Natura 2000 sites.

Regulation 61(1) of the Conservation of Habitats and Species Regulations 2010 (“the Habitats Regulations”) provides:

(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which—
(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and
(b) is not directly connected with or necessary to the management of that site,
must make an appropriate assessment of the implications for that site in view of that site's conservation objectives

Regulation 61(5) of the Habitats Regulations provides that in the light of the conclusions of an appropriate assessment, subject to Regulation 62, the competent authority may agree to the relevant plan or project only after having ascertained that it will not adversely affect the integrity of the European site concerned.

1.1 Background

The Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna – the ‘Habitats Directive’ provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of interest to the EU in a favourable condition. This is implemented through a network of protected areas referred to as Natura 2000 sites.

The Natura 2000 sites are of two types – Special Area of Conservation (SAC) and Special Protection Areas (SPA). SAC's stem from the Habitats Directive, and are mainly habitat features, whereas SPA's are features comprising populations of bird species. Each Natura 2000 site has a number of qualifying features, for which conservation objectives have been developed.

Articles 6(3) and 6(4) of the Habitats Directive require Appropriate Assessment of plans and projects likely to have a significant effect on a European site. This means that the effects of such plans/projects on Natura 2000 sites need to be assessed to ensure that the integrity of these sites is maintained. The proposed Energy from Waste Plant, North Yard, Plymouth is such a project.

The purpose of a Habitat Regulations Assessment (HRA) is to assess the impacts of a project on nearby Natura 2000 Site(s). The assessment must first determine whether the project is likely to have a significant effect on the features of the Natura 2000 sites(s), then if so to determine whether the project will adversely affect the integrity of the site in terms of its nature conservation objectives. Where negative effects are identified other options should be examined to avoid any potential damaging effects.

The site of the proposed development is not one of the five sites allocated in Plymouth City Council's Waste Development Plan Document (DPD) as being suitable for a range of strategic waste management facilities. However, Policy W7 of the Waste DPD states that such facilities at unallocated sites can still achieve planning permission assuming a series of criteria are met.

Consideration of whether it is possible to say that no significant effect might be occasioned by MVVs project for an Energy from Waste Plant at the North Yard on the integrity of the European sites will be made on the basis of information summarised in this document. Where appropriate, references are given to sources of the information.

1.2 Methodology used for this Habitat Regulations Assessment

The stages are sequential, and it is only necessary to progress to the following stage if a test is failed.

1. Likely significant effect test. Determining whether the project 'either alone or in combination with other plans or projects' is likely to have a significant effect on a European site i.e. is it possible to say that no significant adverse effect might be occasioned?

2. Appropriate Assessment. Determining whether, in view of the site's conservation objectives, the project 'either alone or in combination with other plans or projects' would have an adverse effect (or risk of this) on the integrity of the European site. If not, the project can proceed.

3. Mitigation & Alternatives. Where the plan is assessed as having an adverse effect (or risk of this) on the integrity of a site, there should be an examination of mitigation measures and alternative solutions. If it is not possible to identify mitigation and alternatives it will be necessary to establish the '*imperative reasons of overriding public interest*' (IROPI). This is not considered a standard part of the process and will only be carried out in exceptional circumstances.

All 3 stages of the process are referred cumulatively as Habitat Regulations Assessment, to clearly distinguish the whole process from the step within it referred to as the Appropriate Assessment.

1.3 Consultation

To refine the HRA assessment a detailed review of the Environmental Statement prepared by Scott Wilson and dated May 2011¹ was undertaken by Plymouth City Council, Natural England, Environment Agency and the Tamar Estuaries Consultative Forum.

The applicant, MVV, commissioned URS Scott Wilson to compile information to inform a Habitats Regulations Assessment dated April 2011². Plymouth City Council (PCC) and Natural England (NE) were consulted during this process.

¹ Scott Wilson, May 2011. Energy from Waste Combined Heat and Power Facility North Yard, Devonport Environmental Statement Volume 1: Main Text

² Scott Wilson, Apr 2011. MVV Environment Devonport Ltd Energy from Waste Combined Heat and Power Facility, North Yard, Devonport Habitats Regulations Assessment

As part of a Regulation 19³ further information request issued by PCC on 1st July 2011, requests for further information from NE, the Environment Agency (EA) and Tamar Estuaries Consultative Forum (TECF) were incorporated.

A report⁴ put together by URS Scott Wilson and dated September 2011 contains responses to the further information requested pertaining to:

- Air quality impacts on South Dartmoor Woods SAC
- Air quality impacts on Plymouth Sound & Estuaries SAC (Shore Dock)
- Water quality impacts on Plymouth Sound & Estuaries SAC

- Noise and vibration impacts on Plymouth Sound & Estuaries SAC
- Noise impacts on Tamar Estuaries Complex SPA

2. Likely significant effect test

The principal aim of this chapter is to screen the potential of the project for its likelihood to have a significant effect on any Natura 2000 sites. Taking a precautionary approach we will consider sites within 15 kilometres of the project boundary.

The screening process aims to be a first sieve of the European sites that the project could possibly affect. This section:

- Identifies European sites within 15km of the project (Section 2.1);
- Summarises what the possible effects of the project on those sites could be (Section 2.2);
- Lists existing trends, as well as other plans or projects that could affect the sites 'in combination' with the project; (Section 2.3)
- Considers the possible effects of the project in relation to the ecological requirements of the sites' qualifying features and screens out sites that are unlikely to be affected (Section 2.4)
- Considers the specific proposals associated with the Energy from Waste Plant that might cause an adverse impact relevant to the Natura 2000 sites, and screens out those that will have no significant effect (Section 2.5)

The likely significant effect test of this HRA will take a precautionary approach and will seek to identify the impacts that are at risk of becoming significant as a result of the project. Unless it can be concluded that no significant effect might be occasioned then an appropriate assessment will be required.

³ The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999

⁴ URS Scott Wilson, Sept 2011. Energy from Waste Combined Heat and Power Facility North Yard, Devonport, Planning Application and Environmental Statement, Further Information, Volume 1: Main Text and Appendices

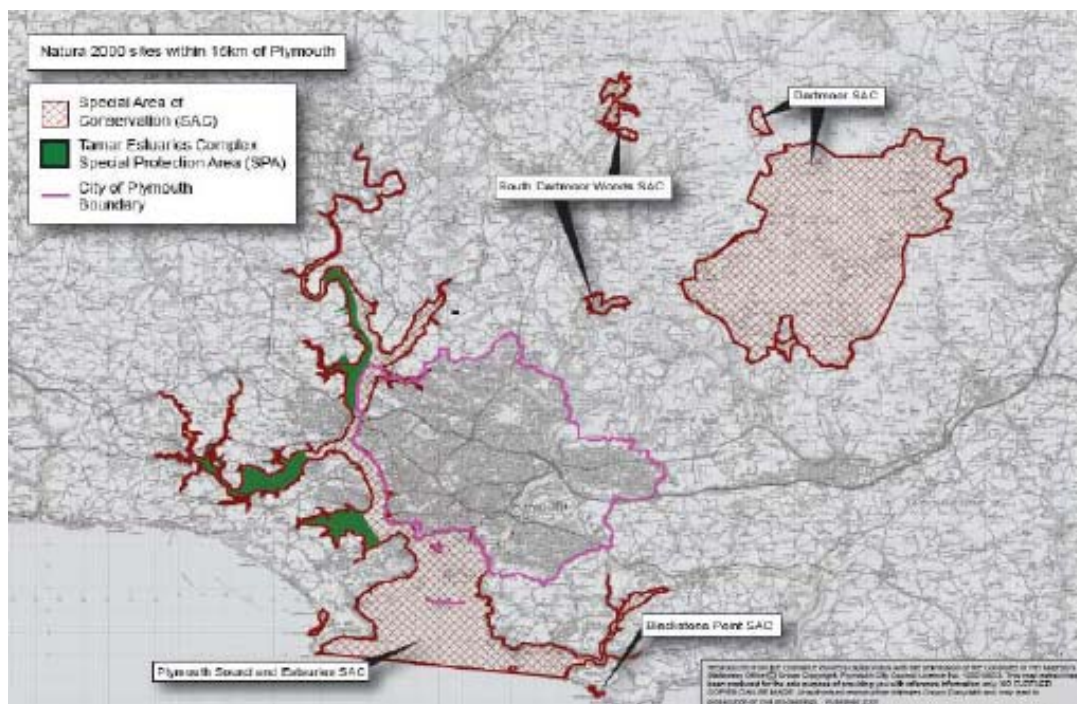
2.1 European Sites

Table 1 lists the European sites that are within 15 km of the boundary of the project. The location of these sites is shown in maps 2 and 3.

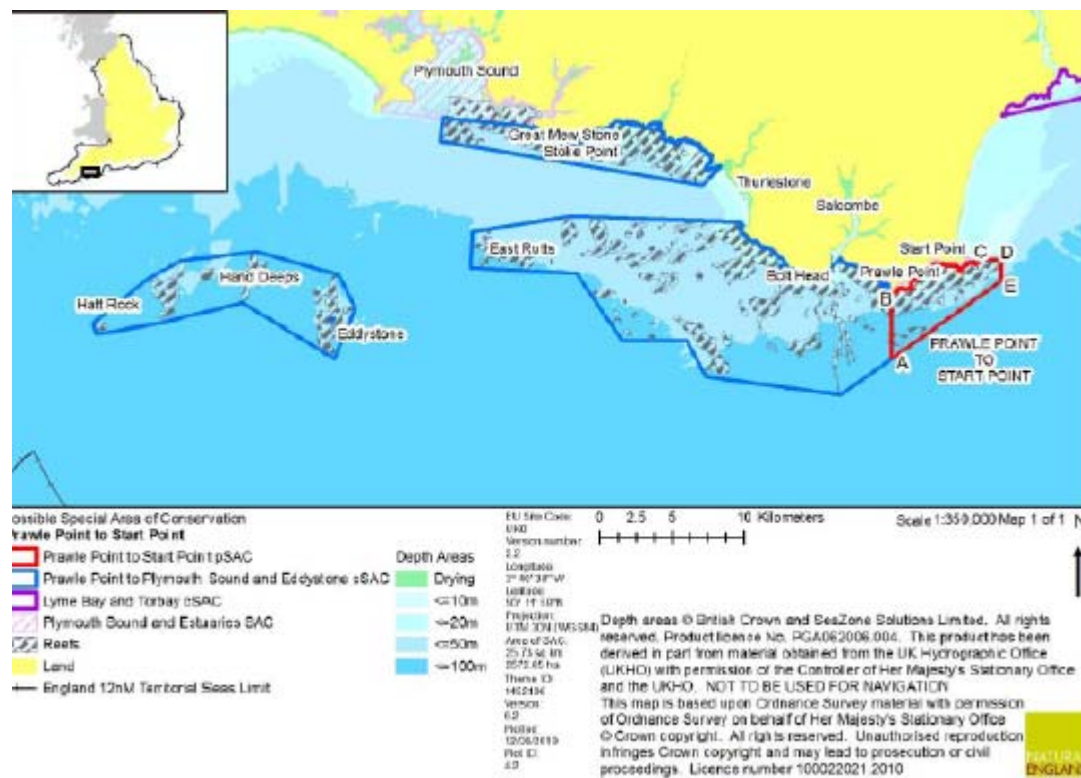
Name of Site	Reasons for Designation
Plymouth Sound & Estuaries SAC	Sandbanks which are slightly covered by sea water all the time. Estuaries. Mudflats and sandflats not covered by seawater at low tide. Large shallow inlets and bays. Atlantic Salt Meadows Reefs. Shore dock. Allis shad.
Tamar Estuaries Complex SPA	Internationally important populations of Avocet & Little Egret
Dartmoor SAC	Northern Atlantic wet heath with <i>Erica tetralix</i> . European dry heath. Blanket bog. Old sessile oak woodlands <i>Ilex</i> and <i>Blechnum</i> in the British Isles. Southern damselfly, <i>Coenagrion mercuriale</i> Otter <i>Lutra lutra</i> Atlantic salmon <i>Salmo salar</i>
Blackstone Point SAC	Shore dock
South Dartmoor Woods SAC	Old sessile oak woodlands <i>Ilex</i> and <i>Blechnum</i> in the British Isles European dry heath
Prawle Point to Plymouth Sound & Eddystone cSAC (Not yet designated but submitted to Europe as a European site under the Habitats Regulations)	Inshore Upstanding Reefs Offshore Upstanding Reefs

Table 1: European sites that could be possibly adversely affected by the project

Map1: Distribution of Natura 2000 sites within 15 km of the project



Map2: Prawle Point to Plymouth Sound & Eddystone cSAC



2.2 Possible effects of the project

The key elements of the project are:

- Construction will take approximately 35 months (including the mobilisation, main construction and commissioning phases). Construction is expected to occur between early 2012 and late 2014.
- The built facility will have the capacity to process 265,000 tonnes of waste per annum
- The waste will be combusted (in a main building of 45m height) and the heat will be used to generate steam. The steam will drive a steam turbine and generate renewable electricity for use at the facility, to supply Devonport Dockyard and HMNB and for export to the grid. Steam will also be extracted from the turbine and fed into the Devonport Dockyard and HMNB steam network to be used for heating purposes.
- Solid residues would be left in the form of bottom ash, which will be transported off site for recycling, and flue gas cleaning residue, which will require disposal off site at a licensed hazardous waste landfill. Treated flue gases will be released into the atmosphere via a 95m chimney. A surface water drainage strategy has been developed. All waste, residues, products and other materials will be stored in designated on-site storage areas, bunkers or containers.
- The facility will primarily deal with Municipal Solid Waste (MSW) from south-west Devon authorities, with some processing of commercial and industrial waste also.
- A new clear-span bridge sufficient to take traffic in both directions at once will be required to replace two existing crossings of Weston Mill Stream. The Stream has hydrological connectivity to the Tamar-Tavy Estuary and Plymouth Sound.
- The rainwater collection system from building roofs, roads and hard standings will be discharged by means of a surface water drainage system. The drainage system will be designed and controlled to prevent accidental discharge to the environment. Sanitary and process wastewater will be discharged to the foul sewer.
- Quality and Environmental Management Systems, compliant with ISO 9001 and ISO 14001, will be implemented. Policies and procedures for the prevention and control of spillages that may cause harm to the environment will be developed, maintained and implemented.

As such, the possible impacts of the project on the Natura 2000 sites are identified as arising from:

- Disturbance due to noise/vibration during construction or operation on sensitive species;
- Water quality impacts; and
- Air quality impacts (both from the operational EfW CHP facility and from road traffic).

2.3 Existing Plans and Projects

Table 2 below summarises developments and plans in Plymouth, nearby districts or in the region that could lead to 'in combination' impacts.

Area	Development Plans or Projects
Devonport Landing Craft Co-location Project, North Yard, Plymouth	11/00634/FUL. The erection of two buildings to provide headquarters, engineering and training facilities. Construction of a marina including pontoons and berthing areas at the eastern end of Weston Mill Lake and a slipway and jetty at the western end. Associated works including dredging and foreshore improvements and lighting
New England Resource Recovery Centre, Lee Mill, Devon	DCC/2975/2010. Development of the "New England Resource Recovery Centre" to include an Energy from Waste facility with a capacity of 275,000 tonnes per annum of residual Municipal Solid Waste (MSW) and Commercial and Industrial Waste (C&I) with bottom ash recycling, non hazardous landfill, visitor centre and road link to the A38.
MOD	Maintenance dredging
EA discharge consents	21 discharge consent licences are held within 1 km of the site
MOD	Submarine Dismantling Project (Plan)
Plymouth City Council	Plymouth City Council Plymouth's LDF Core Strategy sets out a visions to deliver 24,500 dwellings between 2006 – 2026, 130ha of employment land between 2006 – 2026, and to achieving the city's potential as ' <i>economic hub of the far South-West</i> '. Local Development Framework documents. e.g. Waste DPD City Centre and University AAP Millbay and Stonehouse AAP Devonport AAP North Plymstock AAP Sutton Harbour AAP Central Park AAP
Devon County Council	Waste Development Plan Devon Structure Plan 2001-2016
Cornwall County Council	1000 Residential dwellings (allocation from RSS for South West 2006 - 2026)
South Hams District Council	Sherford Area Action Plan - 4,000 dwellings by 2016 with potential expansion to 5500 dwellings. Plymouth Urban Fringe AAP 500 dwellings and a new power station at Langage
Dartmoor National Park	LDF Core Strategy
South Devon & Dorset Coastal Advisory Group (SDADCAG)	Shoreline Management Plan

Table 2: Plans or projects with potential 'in combination' impacts

2.4 Test of likely significant effect

Table 3 documents the test of likely significant effect process for the SPA's/SAC's potentially affected by the project. It considers the significance of a range of possible impacts in relation to the individual sites' qualifying features. A significant effect is considered to be one that is not trivial or inconsequential, but an effect that is potentially relevant to the sites' conservation objectives.

Table 3: Significant effects matrix for the project

Site	Qualifying Features	Possible impacts arising from the project	Is there a risk of significant effect?	Possible 'in combination' plans or projects ⁵	Is there a significant risk of 'in combination' impacts?
Plymouth Sound & Estuaries SAC	Sandbanks which are slightly covered by sea water all the time. Estuaries. Mudflats and sandflats not covered by seawater at low tide. Large shallow inlets and bays. Atlantic Salt Meadows Reefs. Shore dock. Allis shad.	Noise and vibration during construction phase	No. The only interest feature that could be affected is Allis Shad. The SAC is 500m west of the development site and piling will be on land and use boring method which reduces noise and vibration and will be at a level that has no effect on the Allis shad at this distance. ⁶	The adjacent DLCCP project	No. There is no overlap in timescales for piling activities. Separation in timing of piling will be secured through condition. ¹³
		Noise during operational phase	No. The only interest feature that could be affected is Allis Shad. The SAC is 500m west of the development. Noise levels will be consistent with existing noise levels within residential areas just 100m from the site and will have no effect ⁷ .		No
		Water quality during construction phase	No. Measures will be in place to prevent any risk of water quality being affected by construction activities as a Construction Environmental Management Plan (CEMP) will be produced prior to construction. ⁸	Efw Plant New England Quarry Maintenance dredging Shoreline Management Plan	No. Risks to water quality have been prevented.
		Water quality during operational phase	No. There will be no facility process discharges at any time to the river, either hot or cold. ⁹ Emergency response plans will be prepared to ensure that any waste or leachate that is released should an accident occur cannot reach the river. Litter will be removed on site in accordance a Key Performance Indicator against which MVV will be monitored. Measures will be	Efw Plant New England Quarry Maintenance dredging Shoreline Management Plan Submarine Dismantling Project	No. Risks to water quality have been prevented.

⁵ Refer to Section 2.5 for Discussion of Key Issues

⁶ Para C.7.24. URS Scott Wilson, Sept 2011, Energy from Waste Combined Heat and Power Facility North Yard, Devonport, Planning Application and Environmental Statement, Further Information, Volume 1: Main Text and Appendices

⁷ Para 14.6.55. Scott Wilson, May 2011. Energy from Waste Combined Heat and Power Facility North Yard, Devonport Environmental Statement Volume 1: Main Text

⁸ Para 4.2.5. Scott Wilson, Apr 2011. MVV Environment Devonport Ltd Energy from Waste Combined Heat and Power Facility, North Yard, Devonport Habitats Regulations Assessment

⁹ Para C.7.13 URS Scott Wilson, Sept 2011, Energy from Waste Combined Heat and Power Facility North Yard, Devonport, Planning Application and Environmental Statement, Further Information, Volume 1: Main Text and Appendices

		Air quality during construction phase	No. A Construction Environmental Management Plan (CEMP) will be produced prior to construction which will prevent any risk of significant impacts.	Efw Plant New England Quarry	No. There is a negligible effect from dust, litter and vehicle emissions. ¹⁴
		Air quality during operational phase	No. Nutrient nitrogen deposition rates are below 1% of Critical Load (Shore Dock) ¹¹ Vehicle emissions are predicted to have a negligible impact ¹²	Efw Plant New England Quarry	No. There is a negligible effect from stack and vehicle emissions. ¹⁵
Tamar Estuaries Complex SPA	Little Egret 9% passage population in the UK and 8.4% wintering population Avocet 15.8% of the wintering population in the UK.	Noise and vibration during construction phase	No. The SPA is 2km north-west of the development site and the impacts of noise will be negligible at this distance.	The adjacent DLCCP project	No. There is no overlap in timescales for piling activities. Separation in timing of piling will be secured through condition.
		Noise during operational phase	No. The SPA is 2km north-west of the development site and the impacts of noise will be negligible at this distance.		No
		Water quality during construction phase	No. Measures will be in place to prevent any risk of water quality being affected by construction activities as a Construction Environmental Management Plan (CEMP) will be produced prior to construction.	Efw Plant New England Quarry Maintenance dredging Shoreline Management Plan	No. Risks to water quality have been prevented.
		Water quality during operational phase	No. There will be no facility process discharges at any time to the river, either hot or cold. Emergency response plans will be prepared to ensure that any waste or leachate that is released should an accident occur cannot reach the river. Litter will be removed on site in accordance a Key Performance Indicator against which MVV will be monitored. Measures will be in place to ensure that litter cannot reach the SPA.	Efw Plant New England Quarry Maintenance dredging Shoreline Management Plan Submarine Dismantling Project	No. Risks to water quality have been prevented.
		Air quality	No interest features are susceptible.		No
South Dartmoor	Old sessile oak woodlands <i>Ilex</i> and <i>Blechnum</i> in the	Noise and vibration during construction	No. The SAC is just over 10km from the development	The adjacent DLCCP project	No. The SAC is just over 10km from the

¹⁰ Para C.7.22. URS Scott Wilson, Sept 2011, Energy from Waste Combined Heat and Power Facility North Yard, Devonport, Planning Application and Environmental Statement, Further Information, Volume 1: Main Text and Appendices

¹¹ Para D.7.86 URS Scott Wilson, Sept 2011, Energy from Waste Combined Heat and Power Facility North Yard, Devonport, Planning Application and Environmental Statement, Further Information, Volume 1: Main Text and Appendices

¹² Para's 13.9.3 and 13.9.5. Scott Wilson, May 2011. Energy from Waste Combined Heat and Power Facility North Yard, Devonport Environmental Statement Volume 1: Main Text

¹³ Para A.3.15. URS Scott Wilson, Sept 2011, Energy from Waste Combined Heat and Power Facility North Yard, Devonport, Planning Application and Environmental Statement, Further Information, Volume 1: Main Text and Appendices

¹⁴ Para's 7.105-7.111. SLR, Dec 2010, New England Resource Recovery Centre, Environmental Statement, Section 7

¹⁵ Para's 7.105-7.111. SLR, Dec 2010, New England Resource Recovery Centre, Environmental Statement, Section 7

Woods SAC	British Isles European dry heath.	phase	site and the impacts of noise will be negligible at this distance.		development site and the impacts of noise will be negligible at this distance.
		Noise during operational phase	No. The SAC is just over 10km from the development site and the impacts of noise will be negligible at this distance.		No
		Water quality during construction phase	No. The SAC is upstream of the site.		No
		Water quality during operational phase	No. The SAC is upstream of the site.		No
		Air quality during construction phase	No. A Construction Environmental Management Plan (CEMP) will be produced prior to construction which will prevent any risk of significant impacts.	Efw Plant New England Quarry	No. There is a negligible effect from dust, litter and vehicle emissions.
		Air quality during operational phase	No. Stack emissions are predicted to be < 1% of the Critical Load for heathland which is the most sensitive receptor. ¹⁶ Vehicle emissions are predicted to have a negligible impact.	Efw Plant New England Quarry	No. There is a negligible effect from stack and vehicle emissions.
Dartmoor SAC	Northern Atlantic wet heath with <i>Erica tetralix</i> . European dry heath. Blanket bog. Old sessile oak woodlands <i>Ilex</i> and <i>Blechnum</i> in the British Isles. Southern damselfly, <i>Coenagrion mercuriale</i> Otter <i>Lutra lutra</i> Atlantic salmon <i>Salmo salar</i>	Noise and vibration during construction	No. The SAC is over 10km from the development site and the impacts of noise will be negligible at this distance.	The adjacent DLCCP project	No. The SAC is over 10km from the development site and the impacts of noise will be negligible at this distance.
		Noise during operational phase	No. The SAC is over 10km from the development site and the impacts of noise will be negligible at this distance.		No
		Water quality during construction phase	No. Measures will be in place to prevent any risk of water quality being affected by construction activities as a Construction Environmental Management Plan (CEMP) will be produced prior to construction	Efw Plant New England Quarry Maintenance dredging Shoreline Management Plan	No. Risks to water quality have been prevented.
		Water quality during operational phase	No. There will be no facility process discharges at any time to the river, either hot or cold. Emergency response plans will be prepared to ensure that any waste or leachate that is released should an accident occur cannot reach the river. Litter will be removed on site in accordance a Key Performance Indicator against which MVV will be monitored. Measures will be in place to ensure that litter cannot reach the SAC.	Efw Plant New England Quarry Maintenance dredging Shoreline Management Plan Submarine Dismantling Project	No. Risks to water quality have been prevented.
		Air quality during	No. A Construction	Efw Plant New	No. There is a negligible

¹⁶ Para's D.7.80 and D.7.85 URS Scott Wilson, Sept 2011, Energy from Waste Combined Heat and Power Facility North Yard, Devonport, Planning Application and Environmental Statement, Further Information, Volume 1: Main Text and Appendices

		construction phase	Environmental Management Plan (CEMP) will be produced prior to construction which will prevent any risk of significant impacts.	England Quarry	effect from dust, litter and vehicle emissions.
		Air quality during operational phase	No. Stack and vehicle emissions are predicted to be < 1% of the Critical Load for heathland at South Dartmoor Woods SAC which is closer to the source of emissions. Vehicle emissions are predicted to have a negligible impact.	Efw Plant New England Quarry	No. There is a negligible effect from stack and vehicle emissions.
Blackstone Point SAC	Shore Dock	Noise and vibration during construction	No. The SAC is over 10km from the development site and Shore Dock is not sensitive to noise.	The adjacent DLCCP project	No. The SAC is over 10km from the development site and Shore Dock is not sensitive to noise.
		Noise during operational phase	No. The SAC is over 10km from the development site and Shore Dock is not sensitive to noise.		No
		Water quality during construction phase	No. The SAC is over 10km from the development site. Measures will be in place to prevent any risk of water quality being affected by construction activities as a Construction Environmental Management Plan (CEMP) will be produced prior to construction.	Efw Plant New England Quarry Maintenance dredging Shoreline Management Plan	No. Risks to water quality have been prevented.
		Water quality during operational phase	No. The SAC is over 10km from the development site. There will be no facility process discharges at any time to the river, either hot or cold. Emergency response plans will be prepared to ensure that any waste or leachate that is released should an accident occur cannot reach the river. Litter will be removed on site in accordance a Key Performance Indicator against which MVV will be monitored. Measures will be in place to ensure that litter cannot reach the SAC.	Efw Plant New England Quarry Maintenance dredging Shoreline Management Plan Submarine Dismantling Project	No. Risks to water quality have been prevented.
		Air quality during construction phase	No. A Construction Environmental Management Plan (CEMP) will be produced prior to construction which will prevent any risk of significant impacts.	Efw Plant New England Quarry	No. There is a negligible effect from dust, litter and vehicle emissions.
		Air quality during operational phase	No. Nutrient nitrogen deposition rates for Shore Dock in the Plymouth Sound and Estuaries SAC (closer to the source of emissions) are below 1% of Critical Load. Vehicle emissions are predicted to have a negligible impact.	Efw Plant New England Quarry	No. There is a negligible effect from stack and vehicle emissions.

Prawle Point to Plymouth Sound & Eddystone cSAC	Inshore Upstanding Reefs Offshore Upstanding Reefs	Noise and vibration during construction	No. The SAC is 8km south of the development site and reefs are not sensitive to noise.	The adjacent DLCCP project	No. The SAC is 8km south of the development site and the impacts of noise will be negligible at this distance.
		Noise during operational phase	No. The SAC is 8km south of the development site and reefs are not sensitive to noise.		No
		Water quality during construction phase	No. Measures will be in place to prevent any risk of water quality being affected by construction activities as a Construction Environmental Management Plan (CEMP) will be produced prior to construction.	Efw Plant New England Quarry Maintenance dredging Shoreline Management Plan	No. Risks to water quality have been prevented.
		Water quality during operational phase	No. There will be no facility process discharges at any time to the river, either hot or cold. Emergency response plans will be prepared to ensure that any waste or leachate that is released should an accident occur cannot reach the river. Litter will be removed on site in accordance a Key Performance Indicator against which MVV will be monitored. Measures will be in place to ensure that litter cannot reach the cSAC.	Efw Plant New England Quarry Maintenance dredging Shoreline Management Plan Submarine Dismantling Project	No. Risks to water quality have been prevented.
		Air quality during construction phase	No. A Construction Environmental Management Plan (CEMP) will be produced prior to construction which will prevent any risk of significant impacts.	Efw Plant New England Quarry	No. There is a negligible effect from dust, litter and vehicle emissions.
		Air quality during operational phase	No. Nutrient nitrogen deposition rates are below 1% of Critical Load (Shore Dock) for the Plymouth Sound & Estuaries SAC which is nearer. Vehicle emissions are predicted to have a negligible impact on the Plymouth Sound & Estuaries SAC.	Efw Plant New England Quarry	No. There is a negligible effect from stack and vehicle emissions.

2.5 Discussion of key issues

Noise

Piling activities will use a boring method which reduces noise and vibration. Separation of piling activities from those associated with the DLCCP project will be secured through condition. We can conclude no likely significant effect of noise either alone or in combination with other plans or projects during the construction phase.

Noise levels during the operational phase will be mitigated to allow for acceptable levels in residences 100m from the facility. The SAC is 500m from the site and at this distance noise levels will be such that we can conclude no likely significant effect of noise either alone or in combination with other plans or projects during the operational phase.

Water quality

Measures will be in place to prevent any risk of water quality being affected by construction activities. As such we can conclude no likely significant effect either alone or in combination on water quality with other plans or projects during the construction phase.

There will be no facility process discharges at any time to the river, either hot or cold. We can conclude no likely significant effect either alone or in combination on water quality with other plans or projects during the operational phase.

Air quality

Measures will be in place to prevent any risk of air quality being affected by construction activities. As such we can conclude no likely significant effect either alone or in combination on water quality with other plans or projects during the construction phase.

In all cases, the Process Contributions (PCs) are less than 1% of the relevant Critical Load (CL). We can conclude no likely significant effect either alone or in combination on air quality with other plans or projects during the operational phase¹⁷.

In Combination Effects

Numerous additional plans and projects are currently identified for delivery in the surrounding area (refer to Table 2). Four projects are identified, the Devonport Landing Craft Collocation Project, the New England Resource Recovery Centre at Lee Mill, Maintenance Dredging carried out by the MOD and EA discharge consents within 1km of the site. Numerous plans are identified in the area including the Submarine Dismantling Project Plan at Devonport and the Local Development Frameworks for Plymouth, South Hams and Dartmoor. The Plymouth Waste DPD also identifies other waste sites within the vicinity of Plymouth Sound & Estuaries. Most of these Plans and Projects are the subject of separate HRAs which conclude no likely significant effect.

Where plans or projects are not the subject of separate HRAs, they have been screened out in Table 3. As such it can be concluded that no significant effect might be occasioned in combination with any of the plans or projects. This is because either there is no mechanism for the proposed EfW facility at Devonport to operate “in combination” with any of these projects or plans in terms of heightening their effects or, where there is a potential mechanism, the in-combination effects are not such that they would be significant when previously judged to be “not significant”. Nor will any new impacts/effects be created that have not already been considered in this HRA.

¹⁷ Pers Comm. As per Natural England internal national guidelines. 22 November 2011. Mark Wills. Natural England.

2.6 Conclusion

Habitat Regulations Assessment – Test of likely significant effect

The screening work documented in Sections 2.4 & 2.5 demonstrates that it can be concluded that no likely significant effects might be occasioned by MVVs proposed Energy from Waste Plant on Natura 2000 sites.

APPENDIX 6

Policy W7

Proposals for the development of strategic, large scale or local waste management facilities on sites not allocated in this development plan will be permitted, where they meet the following criteria:

- 1. They are consistent with relevant waste planning policies and objectives, are compatible with the objective of moving the management of waste up the waste hierarchy, and do not compromise the achievement of recovery targets.**

Criteria 1 sets out three requirements for proposed waste management development on unallocated sites. These requirements state that the proposed development should:

i. Be consistent with relevant waste planning policies and objectives

The proposal is consistent with relevant waste planning policies and objectives and this is considered in section 9 and 10 of the report and provisions are made in the s106.

ii. Compatible with the objective of moving the management of waste up the waste hierarchy

The proposed facility will recover energy and heat from residual municipal waste that is currently disposed of by landfill. The proposed facility therefore provides a residual waste solution which accords with the objective of moving waste management up the waste hierarchy. The EfW CHP Facility would sit within the “other recovery” level of the waste hierarchy

iii Not compromise the achievement of recovery targets

The proposed development will be complimentary to, rather than in competition with, other waste reduction and recycling initiatives. The facility will be used to manage residual waste which is the material that remains after the recyclable portion of the waste stream has been removed.

The proposed development is to be delivered as part of integrated waste management solutions for the SWDWP, including reduction and recycling strategies and targets that are set out in the municipal waste management strategies of the SWDWP partner authorities. The EfW CHP will not compromise waste recycling targets and will be the main infrastructure required to meet overall diversion from landfill targets.

This is considered in section 10.1 of the report. The proposal accords with criteria 1

- 2. Priority will be given to the use of previously developed land. However, loss of greenfield land may be acceptable if it does not result in significant adverse impact on greenscape character or functions, if the impacts of the development can be adequately mitigated and if the development proposal otherwise performs well in relation to the other criteria of this policy.**

The vast majority of the development area is located on an area of land that was filled for the purpose of creating permanent operational storage area and car-parking for HMNB, under planning permission 00/00997.

The development is within the curtilage of the developed HMNB Devonport and its defence buildings and qualifies for the definition of 'previously developed land' under PPS3, Annex B.

Although the main EfW CHP facility development area is located on previously developed/industrial land, the 'red line' planning application boundary extends around the biodiversity network feature and local Greenscape area that is locally known as 'Blackies Wood'.

Impacts on environmental assets such as Blackies Wood are considered in section 10.6 and 10.8 of the report and schedule 3 of the s106. The proposal accords with criteria 2

3. They are compatible with their environmental setting and will not result in unacceptable impacts on important environmental, historic or cultural assets.

Impacts on the important environmental, historic and cultural assets are considered in section 10.3, 10.5, 10.6, 10.7, 10.8, 10.9 and schedule 3, 5, 6 and 7.

An Ecological Enhancement, Mitigation and Management Plan will be conditioned and agreed with the LPA prior to commencement of works on site. In addition, a sum of £250,000 to be spent on biodiversity enhancements on areas of local greenspace will enable the development to deliver net biodiversity gain in accordance with Policy CS19. The Ecological Enhancement, Mitigation and Management Plan and the sum of £250,000 will also be secured through the S106.

A Habitats Regulation Assessment has been undertaken which concludes that there will be no likely significant effects on any of the European sites in the vicinity of the proposal.

The proposal is considered to be compatible with its environmental setting and does not result in unacceptable impacts on important environmental, historic or cultural assets. The proposal accords with criteria 3.

4. They will not result in unacceptable direct or indirect impacts on the residential amenity of existing or proposed communities, or unacceptable impacts on the amenity of other neighbouring uses that would be sensitive to waste management development.

The Public Protection Service (PPS) is advising the Local Planning Authority (LPA) that it will not object to this application. It is the opinion of the PPS that the application will have an adverse impact on amenity in the local area, however, the impact can be reduced to an acceptable level, by effective mitigation measures, as identified by the applicant, as long as the applicant's predictions are realised and assuming the conditions proposed by PPS are applied.

Impacts on amenity are considered in section 10.6, 10.9 & 10.10 and provisions are required in schedule 3, 5 & 6 of the s106 and the conclusion. The BRE analysis demonstrates that there is no adverse impact in terms of daylighting and sunlighting on adjacent residential properties. However there would be a significant adverse visual effect to a limited number of dwellings which would not in the view of officers be wholly mitigated by the high quality landmark quality design of the building and needs to be weighed against the compelling need for the facility as a whole. The proposal does not therefore fully accord with criteria 4.

5. They have good access to the principal road network which should have adequate capacity, or potential to have adequate capacity, to accommodate the transport movements associated with the proposal. Where practicable, they should have access to a choice of transport modes other than road.

The proposed development site benefits from direct access to the principal network and good onward access to the trunk road network

The proposed site at North Yard is accessed via the A38 (which forms part of the Strategic Road Network; SRN) and then along Weston Mill Drive (A3064) which is identified as a Primary County Route in the Devon Road Network Plan. From beyond its' junction with Wolseley Road, the A3064 continues in a south easterly direction into Plymouth. This primary route would therefore cater for movements to and from the North Yard site by HGV waste trips arising within Plymouth itself. The site could therefore be considered as having good access to the principle road network.

With regard to capacity of such a route to cater for the traffic movements associated with the operation of a waste facility, traffic modelling work has been undertaken at several key junction locations on the approach to the North Yard site. The results of such modelling reveals that there would be no adverse impact upon the operation of those junctions modelled as a result of the development generated trips with the exception of one junction, that being Weston Mill Drive/Ferndale Road/Carlton Terrace. However this junction is shown to already be operating over-capacity in the future assessment years with the inclusion of background traffic growth only (no development trips) and whilst the development does lead to slight deterioration in operating conditions, the applicant has agreed to contribute towards possible future improvements to this junction.

In addition to assessing impacts on the Local Road Network, a further assessment has been undertaken in respect of determining impacts on the SRN. This work has been reviewed by the Highways Agency and they have raised no issues from a capacity viewpoint. However a number of accidents have been recorded at the A38 Weston Mill Junction over a 5 year period and there is a concern that any increase in the use of this junction by HGV's could increase the severity of the accidents that have been recorded. This issue has been addressed by the applicant agreeing to undertake improvements to this junction which are primarily focused around the westbound off-slip.

Finally in respect of movement of waste by alternative modes, due to its' location within the Dockyard there is the potential for waste to be delivered to the site by either water or rail.

Transportation and access issues are considered in section 10.4 of the report and provisions are required in schedule 2 of the s106. The proposal accords with criteria 5.

6. The proposal does not have a significant conflict with other spatial planning objectives set out in the LDF, particularly in relation to urban regeneration, economic development, environmental improvement, and significant growth priorities.

Core strategy 2006-2021 (CS), adopted 2007.

The CS contains 13 Strategic Objectives, which are synonymous with spatial planning objectives. The main focus of this assessment of the compatibility of the proposal with spatial planning objectives is therefore the relevant CS Strategic Objectives.

Other elements of the Local Development Framework that contain spatial planning objectives relevant to this planning application include the design SPD and the Sustainable Neighbourhoods DPD.

The proposed development is in accordance with Strategic Objective 1 as it will provide a sustainable solution to the management of Plymouth and South West Devon's residual municipal waste and a proportion of the commercial and industrial waste arising in the same area. It will contribute significantly to the reduction of greenhouse gas emissions by reducing the amount of waste sent to landfill, generating low carbon electricity and heat, replacing electricity and heat generated from fossil fuels and

maximising the potential to supply CHP to existing or new businesses and homes through a wider district heating scheme.

The proposals are consistent with the city vision as set out in Strategic Objective 2 both in terms of the jobs created directly in the construction and operation of the facility, and in terms of the indirect jobs in supply industries. CHP will play an important role in securing a sustainable business future for HMNB Devonport and the Dockyard.

The proposed development is in accordance with Strategic Objective 3 because some of the proposed community benefits, such as recreation areas and access to community and education facilities within the building, will help to meet the objective of providing a thriving mixed use centre to each community, providing well designed green spaces and providing education, leisure and recreation opportunities. The ability to develop further CHP and district heating opportunities in the City linked to the development also from part of the proposals.

The proposed EfW CHP technology is a high quality; high efficiency solution to the management of residual waste in the SWDWP area is in accordance with Strategic Objective 4.

Strategic Objective 5 relates to the preparation of Area Action Plans for areas of the City that are described as having the greatest development pressure or opportunity or sensitivity to change. There is no Area Action Plan for the North Yard part of Devonport Dockyard and Strategic Objective 5 is not directly relevant to this planning application. The proposals includes the ability for wider District Heating Scheme that could link the plant to South Yard and therefore the benefits of this proposal could also have the potential to provide CHP benefits in the longer term to developments within the Devonport Area Action Plan.

Strategic Objective 6 concerns the delivery of the economic strategy. The impacts on the City's unique assets are considered in relation to criterion 3 of Policy W7, which concludes that the proposed development is in accordance with the policy. The proposals will: create employment opportunities in construction and operation roles (which match the skill sets existing in Plymouth), indirect jobs in supply industries, generate enhanced potential for investment in business attracted by the potential of CHP and the economic advantages that reduced energy bills can offer. The facility will also play an important role in securing the future of HMNB Devonport and the Dockyard as a sustainable business. The applicant and its contractors will actively encourage the use of local labour and local labour agreements both for the construction and operation of the facility. The applicant has also committed to links with the City College, Plymouth and the University of Plymouth with regard to sponsoring training and apprenticeships. This is considered in section 10.5 and schedule 1 of the s106. Additionally, the proposal incorporates facilities available for use by the community providing an education resource, with active links to local schools and colleges. This is considered in section 10.6, 10.7, 10.11, 10.12 and schedule 1, 5 and 6 of the s106.

There are no significant adverse environmental effects, either generated by the EfW CHP facility itself, or that could be generated in combination with the development of a new district centre that would prejudice the delivery of Strategic Objective 7. This is considered in section 7 and 10.4 and schedule 1 of the S106.

The proposed EfW CHP facility has no positive or negative implications for the delivery of Strategic Objective 8.

Strategic Objective 9 relates to the delivery of educational improvements. The proposal incorporates facilities available for use by the community providing an education resource, with active links to local schools and colleges for higher education and apprenticeships. This is considered in section 10.6, 10.7, 10.11, 10.12 and schedule 1, 5 and 6 of the s106.

The proposed EfW CHP facility has no positive or negative implications for the delivery of Strategic Objective 10.

Strategic Objective 11, delivering a Sustainable Environment, includes the goal of maintaining a clean and sustainable environment. The proposals include an extensive area of woodland which will be accessible and be managed primarily for biodiversity and an area of green space which will be developed and made available for recreational use, which will contribute to the achievement of subobjectives 1, 2, 3 and 6. The proposals generate renewable energy and steam for heating purposes at the Dockyard, and maximise the potential to supply CHP to existing or new businesses and homes through a wider district heating scheme, replacing existing fossil-fuel-based generators, thereby making a major contribution to the delivery of strategic objectives 4 and 5.

The development will be subject to stringent pollution controls to the standards required by the Environment Agency and the Planning Authority. This is considered in section 10.2, 10.8, 10.9, 10.10 & 10.11 and schedules 1, 3, 4 and 5 of the s106. The proposal manages flood risk in a sustainable manner and this is considered in section 7, 8.3, 10.3, 10.8 & appendix 4. The applicant has met, if not exceeded, all of the requirements set out in the Statement of Community Involvement and there is no evidence of conflict. This is considered in section 10.12.

The proposed EfW CHP facility has no positive or negative implications for the delivery of Strategic Objective 12.

The proposal accords with Strategic Objective 13 which defines the objectives for the delivery of sustainable waste management in Plymouth, stating that a spatial planning framework in the LDF should be established that supports the Regional and Council's Municipal Waste Management Strategy (MWMS), helping to enable people and businesses produce less waste and provide long term sustainable waste management.

The proposal accords with Strategic Objective 14 which relates to the delivery of sustainable transport and sub-objectives 5, 6 and 7 are relevant to the EfW CHP proposals.

Strategic Objective 15 concerns the delivery of community well-being. Issues of health and wellbeing are specifically assessed in Chapter 18 of the ES (which is summarised at Appendix 5 to this PASS). Chapter 18 and Appendix 5 conclude that incorporated mitigation measures, taken together with other developments in the local area, can be reasonably considered to be capable of minimising the potential for adverse effects on the core protective factors for mental well-being.

The proposal demonstrates that the EfW CHP facility would not conflict with Strategic Objective 15, and many of the positive community benefits proposed as part of the development, and those offered under the S106 heads of terms, would make a positive contribution to the delivery of certain of the sub objectives, such as the proposed enhancement of green space to provide a recreation resource, providing a community meeting place and addressing and minimising potential health impacts.

The proposed development is in accordance with the strategic objectives of Plymouth's LDF and will make a positive contribution to the delivery of many of the objectives and help to directly deliver the waste management strategies of this Council and the SWDWP. The proposal does not therefore have a significant conflict with other spatial planning objectives set out in the LDF, particularly in relation to urban regeneration, economic development, environmental improvement, and significant growth priorities. The proposal accords with criteria 6

Policy W8

Plymouth Waste Core Strategy Policy W8 provides decision making criteria for the consideration of all waste related development proposals, on allocated or un-allocated sites. Policy W8 has 12 sub-criteria, several of which overlap or duplicate the criteria of Policy W7.

Development proposals for waste management facilities will be permitted where they comply with the following criteria:

Criterion 1: They do not have unacceptable impacts on environmental, social or economic assets.

The proposal has many positive impacts on the environment, the economy and socially and they do not have impacts that are considered unacceptable. The proposal accords with criteria 1.

The impacts on environmental assets are considered in relation to criterion 3 of Policy W7, which concludes that the proposed development is in accordance with the policy. The impacts on economic assets are discussed in section 10.2, 10.5 of the report and provisions are required in schedule 1 of the S106. The impacts on social assets are discussed in section 10.4, 10.5, 10.6, 10.9, 10.11, 10.12, 10.13 and provisions are required in schedule 1, 5, 6 & 7 of the s106

Criterion 2: Any adverse impacts on amenity, caused by for example noise, odours, fumes, dust, litter and hours of operation, are minimised by effective mitigation measures.

In relation to noise, odours, fumes, dust, litter and hours of operation (as conditioned) impacts on amenity are considered in relation to criterion 4 of Policy W7, which concludes that the proposed development is in accordance with the policy. The proposal accords with criteria 2.

Criterion 3: Any harmful effects on human health shall be minimised by appropriate mitigation measures. This may require the submission of a Health Impact Assessment where health impacts or potential health impacts are identified.

The proposed development will be required to operate within stringent emissions limits set out by the Waste Incineration Directive. The plant will also be regulated by the Environment Agency and will require an Environmental Permit to operate. The impacts on human health are considered in section 10.11 of the report and provisions are required in schedules 1, 2, 3, 5, 6 and 7. The PCT conducted a Rapid Health Impact Assessment and identified a number of concerns which it is believed can either be dealt with by mitigation, or controlled by the application of appropriate planning conditions. The proposal accords with criteria 3.

Criterion 4: Appropriate mitigation measures shall be provided to minimise any nuisance caused by the attraction of flies / insects, birds or vermin to the facility.

The proposed development will utilise best available techniques in the operation of the waste management facility. All waste loading, unloading, processing and storage will take place within the building. Waste stored in the waste bunker will be continually mixed by the mechanical grab so as to ensure a consistent make-up of waste material is fed into the process, making the facility less attractive to vermin and pests. Site clearance works during construction phase have the potential to give rise to unacceptable impacts from vermin and must be considered as part of the CEMP and is conditioned. The proposal accords with criteria 4. The plant will also be regulated by the Environment Agency who have issued a draft permit covering all aspects of its operation.

Criterion 5: The proposal provides for a good standard of design, particularly in relation to; site layout; quality of building appearance and materials; screening and boundary treatment; and hard and soft landscaping.

Despite the significant visual impact experienced by local residents immediately surrounding the development it is accepted that the proposed design is an intelligent and imaginative response to the design challenge that the energy from waste machine and the site with its residential context presents and will provide a high quality landmark building for the city.

The applicant has developed a landscape strategy in the form of a masterplan which integrates as far as possible the proposed development into its landscape setting, whilst at the same time minimising the adverse effects on landscape character and views. These include the positioning of the building within its site using the most advantageous orientation and site levels, the development of on-site planting to break up its scale, form and massing, the inclusion within the development site of Blackies Wood to the north, and provision of new off site tree planting. Offsite planting will be secured by the section 106 Agreement to mitigate and enhance the local and distant views of the development. The proposal therefore accords with criteria 5.

Criterion 6: The proposal shall have acceptable and convenient access to the principal road network which shall have adequate capacity, or potential to have adequate capacity, to accommodate the transport movements associated with the proposal. For facilities accessible by the public, particular attention needs to be had to the potential impact of peak period queuing. For strategic facilities, transport movements may need to avoid the morning peak period.

The proposed site at North Yard is accessed via the A38 (which forms part of the Strategic Road Network; SRN) and then along Weston Mill Drive (A3064) which is identified as a Primary County Route in the Devon Road Network Plan. From beyond its' junction with Wolseley Road, the A3064 continues in a south easterly direction into Plymouth. This primary route would therefore cater for movements to and from the North Yard site by HGV waste trips arising within Plymouth itself. The site could therefore be considered as having good access to the principle road network. The proposed facility at North Yard will not be open for use by the general public. Due to the time delay between bin collection rounds starting and finishing, the peak hour in terms of arrivals at Energy from Waste plants is generally around the mid-morning period (between 10.00am and 11.00am), with the pm peak occurring between 2.00pm and 3.00pm. These times do not conflict with the peak hours of operation on the local highway network, those being 08.00 - 09.00 in the am and 16.00 - 17.00 in the pm. Transportation and access issues are considered in section 10.4 of the report and provisions are required in schedule 2 of the s106. The proposal accords with criteria 6.

Criterion 7: Adequate space shall be provided on site to ensure vehicles can enter the site, wait, be unloaded and leave safely.

In respect of the North Yard site, a new signalised right turn lane is proposed on the MOD owned Access Road North which will ensure that a safe and convenient means of access is provided into and out of the site. The site is also sufficiently large enough to ensure that vehicles can load/unload within its' confines, with additional stacking capacity proposed on the site access road to cater for peak periods in terms of HGV arrivals. This will ensure that the operation of the facility does not impact upon the operation of the local highway network. Transportation and access issues are considered in section 10.4 of the report and provisions are required in schedule 2 of the s106. The proposal accords with criteria 7.

Criterion 8: The proposal can adequately mitigate other adverse impacts

It is considered that the applicants' have suitably demonstrated in their submission that the layout ensures that the development would not have direct public safety consequences and that conditions are warranted to control activities at the construction, operational or eventual decommissioning stages in the public interest. The proposal accords with criteria 8. Safety concerns are considered in section 10.10 of the report.

Criterion 9: The proposal does not have a significant conflict with other spatial planning objectives set out in the LDF, particularly in relation to urban regeneration, economic development, environmental improvement, and significant growth priorities.

The impact of the proposed development on spatial planning objectives is considered under criterion 6 of Waste DPD Policy W7, which concludes that the proposals are in accordance with and help to deliver many of the relevant objectives. The proposal accords with criteria 9.

Criterion 10: The proposal is compatible with the principles of sustainable waste management and associated policies set out in national, regional policy and in the Core Strategy, as well as the Municipal Waste Management Strategy and Action Plan.

The impact of the proposed development on sustainable waste management and relevant waste planning policy is considered under criterion 1 of policy W7, which concludes that the proposed development is in accordance with the policy. The proposal accords with criteria 10.

Criterion 11: All buildings should incorporate measures consistent with the principles of sustainable design and construction equivalent to the current BREEAM excellent standard

A BREEAM Pre-Assessment is included in the application (Appendix 3 to the PASS). The Pre-Assessment demonstrates that the development achieves an 'Excellent' design rating. The proposal accords with criteria 11.

Criterion 12: All major applications for waste management facilities should include a Climate Change and Sustainability Statement. Suggested content for this statement is included in the Design SPD

A Climate Change and Sustainability Statement is submitted as Appendix 3 to the PASS. The statement has been prepared in accordance with the Design DPD. The proposals are in accordance with sustainable development policy at the national, regional and local level. The proposal accords with criteria 12.

APPENDIX 7

A rapid prospective 'desk-top' health impact Assessment

**Public Health Plymouth
Plymouth teaching Primary Care Trust
October 2011**

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A rapid prospective 'desk-top' health impact assessment

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**The construction of a
Energy from Waste Plant in
Her Majesty's Naval Base,
Devonport, Plymouth**

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CONTENTS

ACKNOWLEDGEMENTS	IV
PREFACE.....	IV
EXECUTIVE SUMMARY	V
DIRECT IMPACTS.....	V
INDIRECT IMPACTS	VI
MITIGATION AND PLANNING CONTROL MEASURES	VII
<i>Mitigation Measures</i>	<i>vii</i>
<i>Control and Planning Conditions.....</i>	<i>viii</i>
BACKGROUND	1
RATIONALE FOR THE RAPID HEALTH IMPACT ASSESSMENT	2
<i>The definition of health and health impact assessment used</i>	<i>2</i>
METHOD	3
<i>HIA Scope and Objectives</i>	<i>3</i>
<i>Health Profile</i>	<i>3</i>
<i>Literature review</i>	<i>3</i>
<i>Issues of Public Concern.....</i>	<i>4</i>
THE HEALTH IMPACTS	8
DIRECT INFLUENCES	8
INDIRECT INFLUENCES.....	9
DISCUSSION	10
<i>Identifying the Impacts of the EfW proposal.....</i>	<i>10</i>
STUDY LIMITATIONS	15
CONCLUDING REMARKS	15
REFERENCES.....	18
APPENDIX 1: HEALTHY URBAN DEVELOPMENT UNIT CHECKLIST	20
APPENDIX 2: HEALTH PROFILE OF PLYMOUTH (SUMMARY)	33
APPENDIX 3: BRIEF LITERATURE REVIEW	39

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Preface

Plymouth Health Plymouth's Health Impact Assessment (HIA) Framework was launched in 2004, it's purpose and intentions are to:

- encourage debate on the use of HIA to inform decision making on projects, policies or programmes that might affect people's health
- work towards integrated assessments of policies across a range of organisations and groups in Plymouth.

The values underpinning the HIA Framework are derived from the 1999 World Health Organisations' Gothenburg Consensus Paper and NHS London's statement for HIA which identified five values of HIA

- democracy
- equity
- sustainable development
- ethical use of evidence
- promotion of health and equality.

This rapid desk-top HIA of the construction of a Energy from Waste (EfW) Plant in Her Majesty's Naval Base, Devonport, Plymouth affords the Developers, MVV Devonport, an opportunity of enhancing the positive health impacts that are evident from their plans, but also to minimise potential negative health impacts that could arise from the construction and life-cycle of the EfW plant.

The rapid desk-top HIA has been undertaken by Public Health Plymouth in association with colleagues in the Primary Care Trust and the Health Protection Agency.

Executive Summary

This rapid desk-top health impact assessment study of the proposed development of a EfW Plant in the North Yard of HM Naval Base in Plymouth is based on the judgements of senior public health staff and is supported by a selected review of evidence from published and grey literature sources. Lay perspectives have been drawn from letters sent to the Planning Authority which are posted on the Plymouth City Council website.

This rapid HIA adapted the Healthy Urban Development Unit checklist for planning proposals and identified 31 issues of public health concern (Appendix 1), arising from the EfW proposal against which the Primary Care Trust is seeking assurance from the Developers.

The 18 Direct and 20 Indirect Impacts identified by the rapid HIA are listed below:

Direct Impacts

Housing Amenity

- The proposal has the potential to impact upon existing housing amenity. (Negative impact)

Access to Public Services

- The proposal impacts on public services needs, location and accessibility do not seem to have been considered. (Negative impact)
- The Primary Care Trust requirements, including model of care, do not seem to have been assessed in context of the proposal. (Negative impact)
- Community facilities are provided within the proposal. (Positive impact)

Opportunities for Physical Activity

- The proposal prioritises and encourages cycling. (Positive impact)
- The proposal does not detail how it will ensure that buildings are designed to maximise physical activity (e.g. positioning of stairwells, shower rooms, secure cycle parking) (Negative impact)
- The proposal enhances opportunities for play and exercise. (Positive impact)
- The proposal does not address open space and natural space deficiency for the plant employees. (Negative impact)

Air Quality, Noise and Neighbourhood Amenity

- The proposal includes measures aimed at minimising construction impacts, including dust and noise.
- The proposal would be a source of additional air pollution (Negative impact)
- The proposal would be a source of additional noise (Negative impact)
- The proposal includes measures aimed at improving air quality (Negative impact)
- The proposal includes measures to protect and enhance green space (Positive impact)
- The proposal provides some high quality amenity space (Positive impact)

Accessibility and Transport

- The proposal site is designed to ensure a clear distinction between the operational waste management areas and the administrative and visitor areas, with separate public and operational access. (Positive impact)
- The proposal, including the buildings, is accessible for people with mobility problems or disability impairment and it incorporates measures to assist people who are car dependent. (Positive impact)
- The proposal is easily accessible and well served by public transport. (Positive impact)
- The proposal incorporates measures aimed at minimising the need to travel by car. (Positive impact)

Indirect Impacts

Crime Reduction and Community Safety

- The proposal incorporates a mix of uses to encourage activity in buildings and public spaces. (Positive impact)
- The local community has been engaged and consulted with regards to the proposal. (Positive impact)

Access to Healthy Food

- The proposal does not facilitate local access to healthy food supply (Negative impact).
- The proposal does not specify how it will avoid contributing towards over concentration of fast food outlets in the local area (Negative impact).

Access to Work

- The proposal provides access to employment and training opportunities. (Positive impact)
- The proposal provides potential diversity in jobs for local residents. (Positive impact)
- The proposal provides opportunities for existing local businesses. (Positive impact)

Social Cohesion and Social Capital

- The proposal contributes towards opportunities for social interaction. (Positive impact)
- The proposal has not addressed local health and social inequalities. (Negative impact)
- The proposal incorporates community facilities. (Positive impact)
- The proposal does not detail how it could provide voluntary sector opportunities. (Negative impact)

Resource Minimisation

- The proposal does not make best use of existing land. (Negative impact)
- The proposal incorporates sustainable design and construction. (Positive impact)
- The proposal does not detail arrangements for the management of waste generated on site. (Negative impact)

Climate Change

- The proposal incorporates renewable energy. (Positive impact)
- The proposal does not detail how it will provide a sustainable approach to transport. (Negative impact)
- The proposal incorporates measures to help to maintain and enhance biodiversity. (Positive impact)
- The proposal has been flood risk assessed. (Positive impact)
- The proposal incorporates sustainable drainage systems to safely deal with surface runoff. (Positive impact)

General

- The proposal has not been subjected to an independent BREEAM assessment. (Negative impact)

The overall public health concerns identified by the HIA are therefore:

- The precautionary principle indicates that there should be an aim of minimising as far as is practicable the production of all emissions relating to air quality and noise from EfW facilities. Research to date does not provide conclusive evidence of the absence of health impacts and risk associated with modern EfW facilities.
- There local population experience multiple deprivation with associated inequalities in health. The proposed development has the potential to impact adversely on the physical and mental health and wellbeing of the local population and may exacerbate existing health inequalities.
- The cumulative impact of this EfW development is likely to place the greatest burden upon some of the poorest and most vulnerable people in the City.
- The literature review and letters of public concern highlight the need of addressing the public perception of risk of EfW plants; the requirement for ongoing meaningful public engagement for the proposal is also highlighted in order to ensure that the local community believe their concerns are being heard, being taken seriously and given due consideration.

Mitigation and Planning Control Measures

As a result of this Rapid HIA exercise, the Plymouth Primary Care Trust has identified a number of concerns which it is believed can either be dealt with by mitigation measures, or controlled by the application or appropriate planning conditions.

Mitigation Measures

The public health concerns that it is believed can be dealt with by mitigation measures are;

Housing Amenity

The proposal has the potential to impact upon existing housing amenity.

- The PCT therefore needs assurance that MVV will deliver a district heating system to Barne Barton.
- The PCT needs assurance that a residential property disamenity impact assessment has been conducted by MVV.

Access to Public Services

The proposal impacts on public services needs, location and accessibility do not seem to have been considered. In particular, the Primary Care Trust requirements do not seem to have been assessed in context of the proposal.

- The PCT therefore needs assurance that MVV will actively consider the promotion of access to good public services, including consideration of Section 106 obligations for health facilities.

Social Cohesion and Social Capital

The proposal has not addressed local health and social inequalities.

- The PCT therefore needs assurance that the MVV proposal will not exacerbate existing health inequalities and will consider in full the Section 106 Obligations.

Resource Minimisation

The proposal does not make best use of existing land.

- The PCT therefore needs assurance from the Planning Authority that the MVV Proposal is acceptable in planning policy terms.

Control and Planning Conditions

The public health concerns that are believed can be controlled by appropriate planning conditions are:

Opportunities for Physical Activity

The proposal does not fully detail how it will ensure that buildings are designed to maximise physical activity (e.g. positioning of stairwells, shower rooms, secure cycle parking).

- The PCT therefore needs assurance that the MVV proposal design encourages employees to be physically active at work, i.e. provide onsite staff gym facilities.

The proposal does not fully address open space and natural space deficiency for the plant employees.

- The PCT therefore needs assurance that the MVV proposal considers access to open natural space for all employees whilst at work.

Air Quality, Noise and Neighbourhood Amenity

The proposal includes measures aimed at minimising construction impacts, including dust and noise.

- The PCT therefore needs assurance that the MVV proposal with regard to Construction Dust and Noise, will respond to community concerns and mitigate accordingly.

The proposal would be a source of additional air pollution

- The PCT therefore needs assurance that the MVV proposal requires all vehicles servicing the site meet lowest emission standards for all vehicles.

The proposal would be a source of additional noise.

- The PCT therefore needs assurance that the MVV proposal would respond to any public complaints of noise of the Plant in construction or operation in a responsive manner.

The proposal includes measures aimed at minimising the negative impact on air quality.

- The PCT therefore needs assurance that the MVV proposal would consider where practicable additional tree planting and provision of green/brown roofs within the plant complex and buildings and the neighbouring areas.

Access to Healthy Food

The proposal does not facilitate local access to healthy food supply.

- The PCT therefore needs assurance that the MVV proposal will ensure that all food provided on-site is locally sourced with healthy options available.

The proposal does not specify how it will avoid contributing towards over concentration of fast food outlets in the local area.

- The PCT therefore needs assurance that the MVV proposal will not add to the provision of fast food outlets in the local area pre and post construction.

Social Cohesion and Social Capital

The proposal does not detail how it could provide voluntary sector opportunities.

- The PCT therefore needs assurance that the MVV proposal will provide opportunities for local voluntary sector use, i.e. use of Visitor Centre facilities for voluntary sector.

Resource Minimisation

The proposal does not specify how waste generated on the site will be managed to minimise creation and maximise recycling.

- Plymouth City Council has provided written assurance that the proposal is part of an integrated waste management strategy where strenuous efforts to significantly increase the level of materials recycled in the area will be on-going; the PCT therefore needs assurance that this will be realised to ensure there is no negative impact.

Climate Change

The proposal does not detail how it will provide a sustainable approach to transport.

- The PCT therefore needs assurance from MVV that all sustainable transport options for transporting waste (to the site and waste materials from site) have been considered.

General

The proposal has not been subjected to an independent BREEAM assessment

- The PCT therefore needs assurance from MVV that the EfW plant design will be subjected to a full and independent environmental assessment using tailored BREEAM criteria to assess the environmental lifecycle of the construction/plant, including health and wellbeing considerations.

Recommendations to enhance potential positive impacts

The following recommendations would enhance the potential positive impacts to maximise health benefit.

Access to Public Services

Community facilities are provided within the proposal.

- The PCT therefore needs assurance that the MVV proposal will ensure wide accessibility to all sectors of the 'local communities' to derive local health and social benefits and that it will add health benefit value to Blackie Woods via out-door gyms and social gathering areas.

Opportunities for Physical Activity

The proposal prioritises and encourages cycling.

- The PCT therefore needs assurance that the MVV proposal will encourage the plant workforce and incentivise towards active travel to work.

The proposal enhances opportunities for play and exercise.

- The PCT therefore needs assurance that the MVV proposal will consider opportunities for recreation facilities for people of all ages and abilities within Blackie Woods and the adjacent, areas for health benefits.

Air Quality, Noise and Neighbourhood Amenity

The proposal includes measures to protect and enhance green space.

- The PCT therefore needs assurance that the MVV proposal will consider all opportunities for accompanied field visits to Weston Mill Creek for educational and environmental purposes.

The proposal provides some high quality amenity space.

- The PCT therefore needs assurance that the MVV proposal has considered potential impacts upon existing Community facilities, e.g. Tamar View. Assurance is also needed that the MVV Visitor Centre/Facilities will provide added value for all sectors of the local community.

Accessibility and Transport

The proposal incorporates measures to try to minimise the need to travel by car.

- The PCT therefore needs assurance that the MVV proposal will, where practicable, continue with measures to minimise staff travel by car once the plant is operational.

Crime Reduction and Community Safety

The proposal incorporates a mix of uses to encourage activity in buildings and public spaces.

- The PCT therefore needs assurance that the MVV Visitors Centre/Community Facilities will be open and accessible for a wide range of activities at times convenient to the community at incentivised rates or free of charge for the local community.

The local community has been engaged and consulted with regards to the proposal

- The PCT therefore needs assurance that the MVV is committed to developing and sustaining the Local Liaison Committee and the role of the Community Liaison Officer.

Access to Work

The proposal provides access to employment and training opportunities.

- The PCT therefore needs assurance that the MVV proposal will provide a range of opportunities for skills development which could lead to employment, i.e. via volunteering opportunities at the Visitor Centre facility.

Social Cohesion and Social Capital

The proposal contributes towards opportunities for social interaction

- The PCT therefore needs assurance that the MVV proposal will ensure that improved access to Blackie Woods and the provision of a local visitor centre will enable quality opportunities for social interaction by local communities.

The proposal incorporates community facilities

- The PCT therefore needs assurance that the MVV Visitors Centre/Community Facilities are open and accessible for a wide range of activities at times convenient to the community at incentivised rates or free of charge for the local community.

Climate Change

The proposal incorporates measures to help to maintain and enhance biodiversity

- The PCT therefore needs assurance from MVV that the expected benefits to bio-diversity will be realised.

The proposal incorporates sustainable drainage systems to safely deal with surface runoff

- The PCT therefore needs assurance from MVV that the surface water drainage strategy poses no risk to the development or third parties.

General Recommendations

1. That Plymouth City Council Planning Services read and give due consideration to this report and its findings
2. That MVV Environment Devonport Ltd read and give due consideration to this report and its findings and provide assurances as indicated.

A rapid prospective health impact assessment

The construction of a Energy from Waste Plant in Her Majesty's Naval Base, Devonport, Plymouth

Background

Through a competitive tendering process, MVV Environment Devonport Limited (MVV) has been awarded the South West Devon Waste Partnership's (SWDWP) residual waste treatment and disposal contract. The SWDWP is a collaboration that has been established between Plymouth City Council, Torbay Council and Devon County Council to provide a long term solution to deal with waste from the southwest Devon area which is left over after re-use, recycling and composting. MVV's proposal is to construct and operate a Energy from Waste (EfW) facility, incorporating Combined Heat and Power (CHP) technology, on land currently situated in the north east of Her Majesty's Naval Base (HMNB) Devonport, Plymouth. This EfW CHP facility will, depending on the composition of the waste and therefore its energy content, have capacity to process up to 265,000 tonnes per year of waste although it is expected that 245,000 tonnes per year will be processed. The waste will be combusted and the heat will be used to generate steam. The steam will drive a steam turbine and generate renewable electricity for use at the facility, to supply Devonport Dockyard and HMNB, and for export to the National Grid. Steam will also be extracted from the turbine and fed into the Devonport Dockyard and HMNB steam network to be used for heating. Locating a energy from waste incinerator in the Naval Base, adjacent to urban areas of deprivation, will be a contentious decision and has already generated a great deal of public concern and debate in Plymouth.

Rationale for the rapid health impact assessment

The proposal to construct and run a Energy from Waste (EfW) plant in the Naval Base in Plymouth is a significant development; potential health and social issues arising from the development need to be considered and assessed against scientific evidence, alongside public concern. The EfW impacts could be experienced by the local community over the next twenty years or more in Plymouth. The rationale for the rapid prospective health impact assessment (HIA) was two fold; firstly, to be used as the method to inform Plymouth PCT's response to the planning application and secondly to afford the Developers an opportunity to respond to adverse health impacts, where identified via mitigation measures and secondly to enhance, where possible, positive impacts on health where identified by this HIA study.

The definition of health and health impact assessment used

The definition of health from the World Health Organisation (1946) offers a broad concept of health and was used as the basis of understanding health in the study.

"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being, without distinction of race, religion, political belief, economic or social condition".

For the purposes of this HIA the 'Gothenburg Consensus paper', also from the World Health Organisation (WHO 1999:4), was used as the basis to understand health impact assessment and the nature of health impacts:

Health Impact(s) are the overall effects, direct or indirect, of a policy, strategy, programme or project on the health of a population. (This may include direct effects on the health of the members of the population and more indirect effects through intermediate factors that influence the determinants of health of the population. Such impacts may be felt immediately, in the short term, or after a longer period of time).

Health Impact Assessment is a combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.

There is no agreed methodology for undertaking an HIA, but they may be conducted retrospectively, prospectively or concurrently; this HIA was a rapid desk-top prospective study.

Method

HIA Scope and Objectives

The objectives of the rapid prospective Health Impact Assessment are to;

- Assess the prospective health impacts of the proposed Energy from Waste plant on the local resident population and health and social care service delivery
- Inform the Planning Application process in considering the application to develop the Energy from Waste plant

Method

- Establishment of a multi-professional Steering Group
- Rapid literature review of the selected evidence
- Collation of appropriate local health intelligence
- Thematic analysis of letters to the planning authority
- Review of the Developers EfW proposal documentation
- Professional Public Health judgement of the proposal and likely impacts on health
- Identification of possible solutions to any negative impacts identified and enhancements to any positive impacts identified

Health Profile

A mini-health profile of Plymouth was compiled using data and reports relevant to inequalities in health. The profile is an integral part of the baseline information for the EfW HIA and can be found in Appendix 2.

Literature review

A brief literature review of the evidence of impacts on health from EfW developments was undertaken (Appendix 3); six themes (see below) were identified from the literature and were used to inform the rapid HIA.

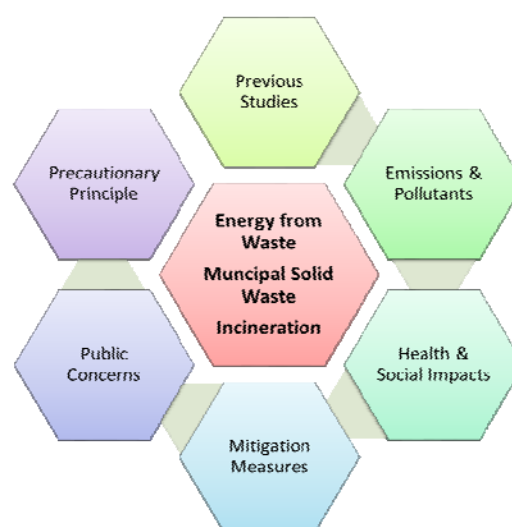


Figure 1: Six themes arising from the EfW literature review

This HIA study was undertaken using a desk-top approach; public participation was not possible because of time constraints. Public concerns were therefore identified by a thematic analysis of letters from the public responding to the local authority concerning the planning application and to the Health Protection agency concerning the environmental permit application.

Issues of Public Concern

Planning Applications afford members of the public an opportunity to raise any issues of concern or objection to the planning proposal. These objections and concerns are put into the public domain as part of the overall consultation process. In order to determine public concern in relation to the EfW proposal in Plymouth the letters of representation to the Plymouth Planning Authority were accessed via the City Council website and reviewed by the Public Health Department.

Method to identify areas of Public Concern

399 letters to the local authority (in response to the Planning Application) and the Health Protection Agency (in response to the EA Permit application) from residents in Devon and Cornwall were analysed for themes. Only those letters with a Plymouth (PL) postcode were included in the analysis. Corporate concerns were excluded. Of the 339 different people who raised concerns 310 had a full postal address for mapping origin of concern (Figure 2). When multiple letters were identified from the same residents, additional concerns were pooled with the original letter of representation to avoid duplication.

Figure 2 shows that majority of residents' letters of objection or concern originated from the areas of Barne Barton, Weston Mill, Keyham and St.Budeaux; concerns were raised by residents in other areas of the city who would be less directly affected by the proposal; these include residents in areas such as Stoke, Ford, Beacon Park and Pennycross.

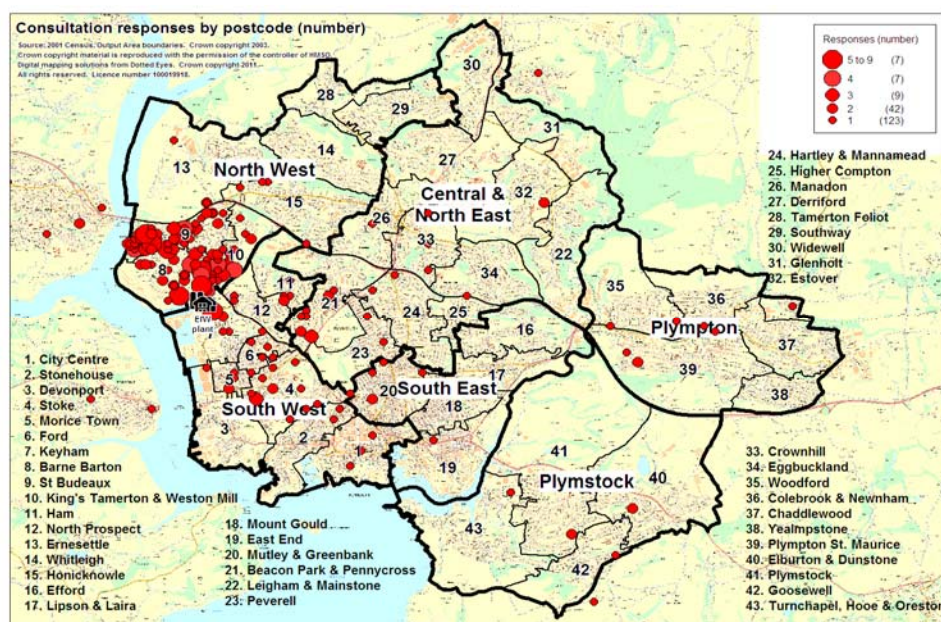


Figure 2: Map of Plymouth showing origin of residents objecting to the EfW proposal, based on Postcode and weighted to represent number of concerned residents.

Recurrent themes of public expressed concerns – a summary

The effect of site traffic

Of the 339 residents raising concerns to the EfW proposal the issues of the increase in traffic and heavy good vehicles was a common theme. Residents were concerned with the extra congestion and presence of traffic (n=169), the danger that this poses in relation to the safety of themselves or their children on local roads (n=45) and the impact of the extra vehicle emissions on themselves or their local environment (n=99).

One resident stated:

'According to MVV's figures, on weekdays there would be traffic going either onto or out of the site at the rate of 1 every 2.5 minutes. This would result in practically continuous noise for the local inhabitants during the 11 hours per day of lorry movements. In fact the only day in the entire year when there would be no lorry noise would be Christmas day'.

Pollution (short and long term)

150 residents raised concerns about the impact on the local air quality as a consequence of the EfW proposed plant. Many residents expressed concern that additional air pollution would exacerbate asthmatic and allergic conditions of themselves and their children, or lead to worsening of respiratory disease. 67 residents were concerned about the smell that would be caused by the plant and its activity.

One resident suggested:

'all fumes from the slow moving or static vehicles plus the smells from the sewage plant and the toxic fumes from the incinerator which will all hang in the area which incidentally is also adjacent to a Primary School and old peoples' sheltered scheme housing estate and this must be a serious health hazard to everyone having to live, go to school and work in the vicinity'.

116 residents expressed more general concerns regarding pollution of the local environment to humans, animals and landscape; 24 residents expressed fear of the effect of the additional pollution on their locally grown organic crops.

Choice of site location

165 residents raised concerns about the close proximity of the proposed site to local schools and housing. The visual impact of the proposed facility on the landscape was raised by 96 residents with residents concerned that the building will block out light and views for nearby housing. 127 residents felt that the noise from the plant and traffic would impact on local residents.

In reference to the site drawings one resident wrote:

'it reveals in truly shocking detail the impact of the proposed incinerator on its immediate surroundings and shows clearly perhaps for the first time, how it overshadows nearby residential properties; with the roof garden and office windows looking directly into my home'

64 residents raised concerns about the proposed site being in an area of deprivation, with an existing vulnerable community. For example:

'Building this in a built up residential area in an area of poor health outcomes is not just insensitive, it is counter-productive to the City Council's stated objective of "narrowing the gap".'

Cumulative risk

Residents (n=105) were concerned with the cumulative risk of expanding an already industrial area. This risk was expressed in terms of personal safety, i.e. should a major industrial accident occur, as well as the cumulative environmental impact and contribution to global warming and the risks of flooding in the local area.

'I am concerned as there is only one way in and out of the area if an emergency were to happen and an evacuation has to take place'.

Economic impact

Residents, especially homeowners, raised concerns about the impact of the development on house prices, while residents from all forms of accommodation highlighted concerns in the council spending money and how this would indirectly impact on them in the future. Combined these concerns were raised by 45 residents; for example:

'The noise from the plant is inevitable and people's houses will be devalued, we don't all live in council houses you know! Would this incinerator be placed near an affluent area, I don't think so'.

Public engagement and consultation

Although MVV have engaged in consultation with the local community many residents raised concern that they have not been included in this consultation, or that they feel that their opinions have not been taken seriously by local authorities (n=81).

One resident wrote:

'This is the first time I have ever written such a letter, I feel that strongly about it, we have signed petitions etc but so far they seem to have been ignored. Come on please think again. Would you like to live near such a place. Bet you wouldn't. A lot of us in St Budeaux, Barne Barton, Keyham etc have no choice. Please try to see our point of view and help stop this project now'

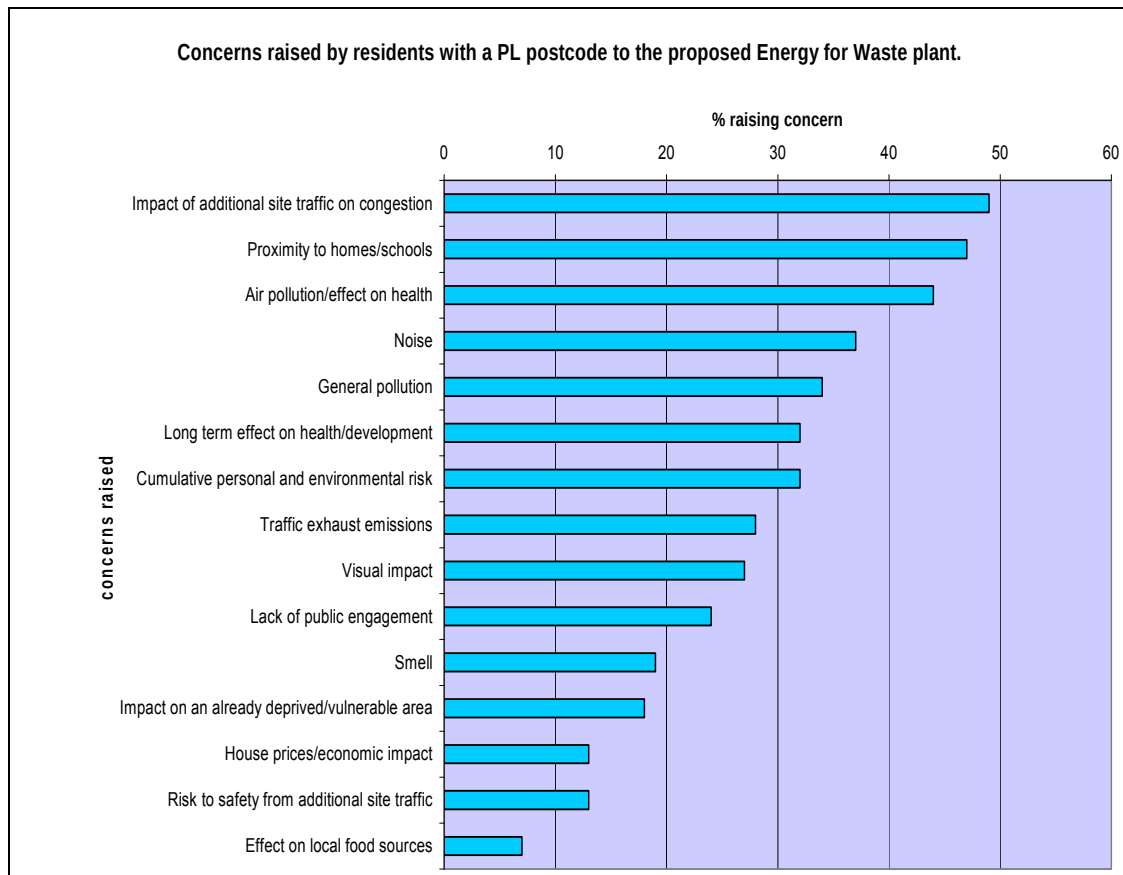


Figure 3: Bar chart identifying the % of residents raising themed concerns

THE HEALTH IMPACTS

DIRECT INFLUENCES

Direct Influence	√	X
Housing Amenity The proposal has the potential to impact upon existing housing amenity.		X
Access to Public Services The proposal impacts on public services needs, location and accessibility do not seem to have been considered.		X
The Primary Care Trust requirements, including model of care, do not seem to have been assessed in context of the proposal.		X
Community facilities are provided within the proposal.	√	
Opportunities for Physical Activity The proposal prioritises and encourages cycling.	√	
The proposal does not detail how it will ensure that buildings are designed to maximise physical activity (e.g. positioning of stairwells, shower rooms, secure cycle parking)		X
The proposal enhances opportunities for play and exercise.	√	
The proposal does not address open space and natural space deficiency for the plant employees.		X
Air Quality, Noise and Neighbourhood Amenity The proposal includes measures aimed at minimising construction impacts, including dust and noise.	√	X
The proposal would be a source of additional air pollution		X
The proposal would be a source of additional noise		X
The proposal includes measures aimed at minimising the negative impact on air quality		X
The proposal includes measures to protect and enhance green space	√	
The proposal provides some high quality amenity space	√	
Accessibility and Transport The proposal site is designed to ensure a clear distinction between the operational waste management areas and the administrative and visitor areas, with separate public and operational access.	√	
The proposal including the buildings, is accessible for people with mobility problems or disability impairment and it incorporates measures to assist people who are car dependent	√	
The proposal is easily accessible and well served by public transport	√	
The proposal incorporates measures to try to minimise the need to travel by car	√	

INDIRECT INFLUENCES

Indirect Influence	√	X
Crime Reduction and Community Safety The proposal incorporates a mix of uses to encourage activity in buildings and public spaces	√	
The local community has been engaged and consulted with regards to the proposal	√	
Access to Healthy Food The proposal does not facilitate local access to healthy food supply		X
The proposal does not specify how it will avoid contributing towards over concentration of fast food outlets in the local area		X
Access to Work The proposal provides access to employment and training opportunities	√	
The proposal provides potential diversity in jobs for local residents	√	
The proposal provides opportunities for existing local businesses	√	
Social Cohesion and Social Capital The proposal contributes towards opportunities for social interaction	√	
The proposal has not addressed local health and social inequalities		X
The proposal incorporates community facilities	√	
The proposal does not detail how it could provide voluntary sector opportunities		X
Resource Minimisation The proposal does not make best use of existing land		X
The proposal does not directly encourage recycling	√	X
The proposal incorporates sustainable design and construction	√	
The proposal does not specify how waste generated on the site will be managed to minimise creation and maximise recycling		X
Climate Change The proposal incorporates renewable energy	√	
The proposal does not detail how it will provide a sustainable approach to transport		X
The proposal incorporates measures to help to maintain and enhance biodiversity	√	
The proposal been flood risk assessed	√	
The proposal incorporates sustainable drainage systems to safely deal with surface runoff	√	
General The proposal has not been subjected to an independent BREEAM assessment		X

DISCUSSION

Identifying the Impacts of the EfW proposal

The qualitative analysis of public responses to the planning application for the MVV proposal identified the following areas of local public concern;

- Impact of additional site traffic on congestion
- Proximity of development to existing homes and schools
- Air pollution and effects on health
- Noise
- General pollution
- Long term effects on health
- Cumulative personal and environmental risk
- Traffic exhaust emissions
- Visual impact
- Lack of public engagement
- Odour
- Impact on an already deprived and vulnerable area and population
- House prices and economic impact
- Risk to safety from additional site traffic
- Effect on local food sources

The local health profile demonstrates that the neighbourhoods adjacent and nearest to the proposal are some of the most deprived in the City and the health of the local residents, in terms of morbidity and mortality is some of the poorest in the City. The area demonstrates considerable and persistent inequalities in many aspects of health and wellbeing. There are large numbers of vulnerable families living close to the proposed site and there is a very high proportion of children in the local area. The above all make for a vulnerable local population who are likely to experience greater disadvantage as a result of the proposal than an average population.

The main themes identified by the rapid literature review are;

- Evidence from previous studies
- Emissions and Pollutants
- Health and Social Impacts
- Mitigation Measures
- Public Concerns
- Precautionary Principle

It is against this background information that the following judgements have been made by Public Health Plymouth and the HIA Steering Group in assessing the potential impacts of the proposal.

Direct Influences

Housing Amenity

The proposal has the potential to impact upon existing housing amenity. The potential for the proposal to give rise to disamenity in terms of residential properties (e.g. reduction in property value and saleability) in the local area is not detailed in the Environmental Statement. The WHO (2007) Scientific Report says that it is important that the adverse effects on health due to the effect on property values should be considered. The potential impact on house prices has also been raised as a local public concern. The proposal does however recognise the opportunity to provide a district heating system serving local residential properties. The proposal includes an undertaking to examine this possibility. The provision of subsidised district heating to local residential properties would contribute to a potential reduction in fuel costs and improved heating which could have a positive impact on the health of residents. The recent Marmot Review Team Report (2011) details the positive physical and mental health benefits gained from reducing fuel poverty and cold housing conditions.

Access to Public Services

The proposals' impacts on public services needs, location and accessibility do not seem to have been considered and the Primary Care Trust requirements do not seem to have been assessed. The consideration of the promotion of access to good public services, including health should be considered. There is potential for the proposal to contribute to improved service provision in the local neighbourhoods which could have a positive impact on residents' health and wellbeing.

Opportunities for Physical Activity

The proposal prioritises and encourages cycling within the proposed work travel plan. It also provides enhanced opportunities for play and exercise for local residents by the provision of an informal sports field and increased public access to Blackie Woods. The health benefits of these proposals could be maximised by the provision of recreational facilities for people of all ages and abilities.

The proposal does not detail how it will ensure that buildings are designed to maximise physical activity (e.g. positioning of stairwells, shower rooms, secure cycle parking) and it does not address open space and natural space deficiency for the plant employees. Addressing these issues would maximise opportunities for health benefiting physical activity by employees.

Air Quality, Noise and Neighbourhood Amenity

The proposal would be a potential source of additional air pollution and noise, both of which have the potential to impact negatively on the health of local residents. The existing health of local residents is poor compared to average levels of health in Plymouth, as evidenced by the Local Health Profile provided in Appendix 2. The Health Protection Agency's review of the research examining the links between emissions from municipal waste incinerators and effects on health suggests that while it is not possible to rule out adverse health effects from modern, well regulated municipal waste incinerators with complete certainty, any potential damage to the health of those living close-by is likely to be very small, if detectable. However, The WHO Scientific Report (2007) argues that the health impact of waste management procedures cannot yet be properly evaluated, because of the limitations of the current state of

knowledge. Other reports argue that the absence of evidence of harm or impact is not evidence of absence and that the precautionary principle should therefore apply as the overriding concern. The WHO also comments on the importance of an appreciation of possible inequity in the distribution of exposure to emissions among population subgroups, taking into account the possibility of higher exposure of socioeconomically deprived groups, as would be the case in this instance. In addition to the emissions from the proposed incinerator, the additional traffic required to serve the incinerator would also add to local air pollution levels and generate further noise. Local residents have raised concerns regarding air quality, impacts on health, traffic pollution and existing health inequalities.

The proposal includes many measures aimed at minimising these impacts both in construction and operation. The requirement to obtain an Environment Agency permit to operate the plant should ensure that current legal requirements are met with regards to the emissions from the proposed plant. Further measures such as the requirement for all vehicles servicing the site to meet the lowest emission standards, and prompt responsive action to any complaints from local residents of nuisance from noise and dust generated from either construction or operation could be provided.

The proposal includes measures aimed at improving air quality, such as the proposed provision of a brown roof, additional tree planting and hedgerow provision. These measures could be enhanced if additional planting and green/brown roofs were provided. The proposal includes further measures to protect and enhance green space and provides some high quality amenity space. These measures could be further enhanced by providing opportunities for accompanied field visits to the adjacent areas for educational and environmental purposes and if the community facilities provided deliver added value, over and above existing facilities, for the local community. These measures help to minimise the negative impact on air quality, but overall the proposal is considered to have a negative impact on air quality.

Accessibility and Transport

The proposal site is designed to ensure a clear distinction between the operational waste management areas and the administrative and visitor areas, with separate public and operational access. The site and buildings are intended to be accessible for people with mobility problems or disability impairment and measures to assist people who are car dependent are detailed. The proposal is also easily accessible and well served by public transport and incorporates measures to try to minimise the need to travel by car. These elements provide potential positive impacts. Continuing measures to minimise staff travel by car once the plant is operational would deliver additional benefit.

Indirect Influences

Crime Reduction and Community Safety

The proposal incorporates a mix of uses to encourage activity in buildings and public spaces. The proposed Visitor Centre and community facilities should be open and accessible for a wide range of activities at times convenient to the local community. Providing the facilities free of charge or at incentivised rates would also improve their potential impact.

The local community has been engaged and consulted with regards to the proposal, however some local residents reported in their letters of objection that their concerns are not being

given due consideration and perceived lack of public engagement was a concern raised in public responses to the planning application. There must be a continuing commitment to developing and sustaining the Local Liaison Committee and to responding to community requests on further engagement and the Community Liaison Officer role should be flexible to help meet community needs in order to maximise the potential for positive impacts. Opportunities for active community participation have been shown to be essential in achieving waste management goals and in enabling effective mitigation of the impacts of developments such in this proposal.

Access to Healthy Food

The proposal does not facilitate local access to healthy food supply and does not specify how it will avoid contributing towards an over concentration of fast food outlets in the local area as a result of the construction phase. Ensuring that all food provided on the proposed site is locally sourced, that healthy options are always available and preventing the provision of fast food outlets on site during construction and operation would provide potential to impact positively on the health of workers, visitors and the local community.

Access to Work

The proposal provides welcome access to employment and training opportunities. It also provides potential diversity in jobs for local residents. These are potential positive impacts in an area of existing high unemployment that could be enhanced by the proposal providing a range of further opportunities for skills development which could lead to employment e.g. via volunteering opportunities at the Visitor Centre.

The proposal provides opportunities for existing local businesses. During construction there is the potential for local businesses to supply materials and labour. The provision of heat and power to the MOD and Babcock Ltd within HM Naval Base Devonport provide opportunities for these undertakings and are potential considerable positive impacts.

Social Cohesion and Social Capital

The proposal contributes towards opportunities for social interaction by means of the provision of a Visitor Centre and improved access to Blackie Woods. To maximise the potential positive impact of these elements the proposal should ensure that these enable quality opportunities for social interaction by local communities and groups.

The proposal notes existing local inequalities but has not addressed these in the proposal; assurance is therefore needed that the proposal will not exacerbate existing health inequalities. The location of an EfW plant such as this in deprived areas raises complex issues of environmental and social justice. Research shows that social concerns will concentrate on health effects and the impact on quality of life. A sense that health risks are not shared equally has been shown to exist in similar developments with real concerns on cumulative risk from numerous pollution sources. The status of local residents has been shown to be very important when considering the health and social impacts of similar proposals. These concerns have been reflected in local public responses to the planning application. The local population experiences multiple deprivation with existing considerable health inequalities. There is a large local child population. Children are known to be more sensitive to environmental hazards and children living in deprived areas are known to already be more exposed to harmful environmental conditions.

The proposal incorporates community facilities with the provision of a Visitor Centre and improved access to Blackie Woods. The potential positive impacts of these should be maximised by ensuring full and open access and provision of a range of activities at times convenient to the local community and at incentivised rates or preferably free of charge for the local community. The proposal does not detail how it could provide voluntary sector opportunities. The Visitor Centre should be made available for use by the voluntary sector in order to negate this.

Resource Minimisation

The proposal does not make best use of existing land in that the proposed site is not allocated as a suitable waste site in the City Council's Waste Development Plan. Assurance would be needed that the proposal is therefore acceptable in planning terms in order to deviate from existing policy.

The proposal does not directly encourage recycling. The potential for energy from waste developments where long term contracts are present to undermine efforts to reduce waste at source and to increase recycling and reuse of wastes is recorded in relevant literature and reviews. An assurance has already been provided by the City Council that as part of an integrated waste management strategy this proposal will not undermine their strenuous efforts to increase the levels of materials recycled in the City. This assurance will need to be realised to prevent a negative impact in this respect.

The proposal incorporates sustainable design and construction and as such has the potential to deliver some positive impact. Opportunities to incorporate further sustainable construction would deliver greater potential benefit.

Climate Change

The proposal incorporates renewable energy which would provide a significant positive impact in terms of carbon reduction. The proposal does not detail how it will provide a sustainable approach to transport over and above a workforce travel plan. Assurance would be needed that all sustainable options for transporting waste and materials too and from the site are considered and implemented wherever practicable.

The proposal incorporates measures to help to maintain and enhance biodiversity by means of environmental improvements to Blackie Woods and local streams and culverts. The anticipated benefits to biodiversity would need to be realised to ensure a positive impact in this respect.

The proposal has been assessed for flood risk and it incorporates sustainable drainage systems to safely deal with surface runoff. There should be no risk to the development or to third parties from surface water drainage.

General

The proposal has not been subjected to an independent BREEAM assessment. Subjecting the plant design to such an assessment would provide further independent assessment of the environmental lifecycle of the construction and operation of the plant, including the health and wellbeing considerations.

Study Limitations

The study is a rapid prospective and desktop health impact assessment; timing and staffing resources did not permit a comprehensive HIA (see Ison 2000), to be undertaken and it is based on the HIA judgements of the senior public health staff and a multi-professional Steering Group.

There are limitations to the rapid thematic analysis of resident's letters of representation, as this was only a sample of the local populations view. Those less able or inclined to convey their opinions in writing may not be represented in this analysis. More in depth 1:1 or focus group interviews would have been advised to capture this detail of qualitative analysis and include harder-to-reach groups concerns (Green and Thorogood, 2004). Additionally only those letters made publically available through the council website and HPA were analysed. Other letters of representation may have been submitted to local councillors and/or MVV. This could have resulted in underrepresentation of resident views in the analysis. Due to the timescales involved analysis was brief and the level of depth limited, this means that less frequent concerns were omitted from the overall analysis, i.e: Asbestos (4 letters of concern raised).

CONCLUDING REMARKS

It is the policy of NHS Plymouth to conduct a HIA on large proposed developments in order to encourage debate and to inform decision making on projects and policies that might affect people's health. A HIA Framework was developed and implemented in 2004 with approval from the Overview and Scrutiny Panel of Plymouth City Council.

The advantage of conducting a prospective HIA is that it provides an opportunity to identify potential impacts prior to a development, making it possible to influence plans before they are implemented. It would have been preferable to have conducted a participative HA, but this was not possible within the time available. Instead, consideration has been given to the full range of documents relating to the EfW proposal that are available in the public domain. This HIA report has been scrutinised and approved by the multi-professional Steering Group.

The proposal by MVV Environment Devonport Limited to construct and operate an EfW facility on land currently situated in the north east of Her Majesty's Naval Base (HMNB) Devonport has caused considerable public concern, as identified through the public letters and responses to the planning and permit applications. The top 5 expressed concerns relate to additional traffic and congestion, the proximity of the proposal to existing homes and schools, the effect of potential air pollution on health, noise and general pollution. In addition residents' letters raised concerns about long term health impacts, cumulative personal and environmental risk and impact on an already deprived area. Despite public consultation events taking place, parts of the local community have expressed that their concerns are not being listened too or taken seriously.

The existing health of the population in the neighbourhoods immediately adjacent to the proposal site is poor compared to City and national average health. The local population

experience multiple deprivations, with associated inequalities in health. The impacts of a development such as that proposed are likely to be more marked on such a population.

A rapid literature review identified the overriding consideration to be to accept the notion of the precautionary principle approach, whilst acknowledging the improved regulation and design of modern EfW incineration plants.

The HIA has identified a range of potential impacts, both positive and negative, relating to the proposed EfW plant. The report makes suggestions for potential mitigation of negative impacts and enhancement of positive impacts. (Appendix 1)

The overall public health concerns identified by the HIA are;

- The precautionary principle indicates that there should be an aim of minimising as far as is practicable the production of all emissions relating to air quality and noise from EfW facilities. Research to date does not provide conclusive evidence of the absence of health impacts and risk associated with modern EfW facilities.
- There local population experience multiple deprivation with associated inequalities in health. The proposed development has the potential to impact negatively on the physical and mental health and wellbeing of the local population and thus may exacerbate the existing inequalities.
- The cumulative impact of this EfW development is likely to place the greatest burden upon some of the poorest and most vulnerable people in the City.
- The literature review and letters of public concern highlight the need of addressing the public perception of risk of EfW plants; the requirement for ongoing meaningful public engagement for the proposal is also highlighted in order to ensure that the local community believe their concerns are being heard, being taken seriously and given due consideration.

As a result of this exercise, the Primary Care Trust has identified a number of concerns which it is believed can either be dealt with by mitigation, or controlled by the application of appropriate planning conditions.

Those concerns that it is believed can be dealt with by mitigation are;

Housing Amenity

The proposal has the potential to impact upon existing housing amenity.

Access to Public Services

The proposal impacts on public services needs, location and accessibility do not seem to have been considered. In particular, the Primary Care Trust requirements do not seem to have been assessed in context of the proposal.

Social Cohesion and Social Capital

The proposal has not addressed local health and social inequalities

Resource Minimisation

The proposal does not make best use of existing land

Those concerns that it is believed can be controlled by appropriate planning conditions are;

Opportunities for Physical Activity

The proposal does not detail how it will ensure that buildings are designed to maximise physical activity (e.g. positioning of stairwells, shower rooms, secure cycle parking)

The proposal does not address open space and natural space deficiency for the plant employees.

Air Quality, Noise and Neighbourhood Amenity

The proposal includes measures aimed at minimising construction impacts, including dust and noise.

The proposal would be a source of additional air pollution

The proposal would be a source of additional noise

The proposal includes measures aimed at minimising the negative impact on air quality

Access to Healthy Food

The proposal does not facilitate local access to healthy food supply

The proposal does not specify how it will avoid contributing towards over concentration of fast food outlets in the local area

Social Cohesion and Social Capital

The proposal does not detail how it could provide voluntary sector opportunities

Resource Minimisation

The proposal does not specify how waste generated on the site will be managed to minimise creation and maximise recycling

Climate Change

The proposal does not detail how it will provide a sustainable approach to transport

General

The proposal has not been subjected to an independent BREEAM assessment

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Appendix 1: Healthy Urban Development Unit Checklist

1. Direct Influences				
Issue	Included in proposal	Details and evidence	Potential health impact	Action or mitigation required
1.1 Housing Amenity				
Does the proposal contain homes that have a high Code for Sustainable Homes rating (e.g. 4 and above)	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Are all homes wheelchair accessible?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Are homes adaptable in supporting independent living for older and disabled people?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Does the proposal promote good design in terms of layout and orientation (internal space, access to sunlight etc)?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Are there a range of home tenures and sizes?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Does the proposal contain homes that are highly energy efficient (e.g. have high SAP ratings)?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Are homes affordable (in line with local planning policy)?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Does the proposal have the potential to impact upon existing housing amenity?	☒ Yes ☐ No ☐ N/a	The proposal recognises the opportunity to provide a district heating system. Potential disamenity in terms of residential properties is not detailed in the MVV proposals.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that MVV will deliver a district heating system to Barne Barton. PCT needs assurance that a residential property disamenity impact assessment has been conducted by MVV.
Overall positive impacts for this category (Add up the total number of positive impacts and divide by the number of relevant issues above and multiple by 100, this gives a percentage outcome)			0%	Outcomes above 50 percent equal a positive outcome for this category, while that below equals a negative outcome for health. This informs the tick box Summary Table outlined in Stage 3 of the Checklist.

Issue	Included in proposal	Details and evidence	Potential health impact	Action or mitigation required
1.2 Access to Public Services				
Have public services needs, location and accessibility been considered?	☐ Yes ☒ No ☐ N/a	Not detailed in the MVV proposals.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that MVV will actively consider the promotion of access to good public services, including health.
Has assessment of healthcare demand via use of the HUDU Model been carried out?	☐ Yes ☐ No ☒ N/a	No new housing in proposal	☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Have Primary Care Trust requirements including model of care been assessed in context of the proposal?	☐ Yes ☒ No ☐ N/a	Not detailed in the MVV proposals.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that the MVV proposal will consider in full the Section 106 Obligations.
Does the proposal facilitate multiple building uses for different public services?	☐ Yes ☐ No ☒ N/a	No use of site facilities for public services detailed in the MVV proposal.	☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Are community facilities provided within the proposal?	☒ Yes ☐ No ☐ N/a	The proposal includes a visitor centre, with potential community use of on site facilities and access to improved Blackie Woods.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance that the MVV proposal will ensure wide accessibility to all sectors of the 'local communities' to derive local health and social benefits and that it will add health benefit value to Blackie Woods via out-door gyms and social gathering areas.
Overall positive impacts for this category (Add up the total number of positive impacts and divide by the number of relevant issues above and multiple by 100, this gives a percentage outcome)			33%	Outcomes above 50 percent equal a positive outcome for this category, while that below equals a negative outcome for health. This informs the tick box Summary Table outlined in Stage 3 of the Checklist.

Issue	Included in proposal	Details and evidence	Potential health impact	Action or mitigation required
1.3 Opportunities for Physical Activity				
Does the proposal prioritise and encourage walking (e.g. HomeZones, walking plans, wide and safe streets etc.)?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Does the proposal prioritise and encourage cycling (e.g. cycle lanes, secure cycle stands, office shower facilities)?	☒ Yes ☐ No ☐ N/a	Proposal includes Work Travel Plan	☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance that the MVV proposal will encourage the Plant Workforce and incentivise towards active travel to work.
Does the proposal ensure that buildings are designed to maximise physical activity (e.g. positioning of stairwells, shower rooms, secure cycle parking)?	☐ Yes ☒ No ☐ N/a	Not fully detailed in the MVV proposals.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that the MVV proposal design encourages employees to be physically active at work, i.e. staff gym facilities.
Does the proposal enhance opportunities for play and exercise (e.g. follows Active Design by Sport England for instance)?	☒ Yes ☐ No ☐ N/a	The proposal includes improvements to Blackie Woods. It also includes the provision of an "informal sports field" adjacent to Savage Gardens.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance that the MVV proposal considers opportunities for recreation facilities of all ages and abilities within Blackie Woods and the adjacent areas for health benefits.
Does the proposal address open space and natural space deficiency for the Plant Employees?	☐ Yes ☒ No ☐ N/a	Not detailed in the MVV proposals.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that the MVV proposal considers access to open natural space for all employees whilst at work.
Overall positive impacts for this category (Add up the total number of positive impacts and divide by the number of relevant issues above and multiple by 100, this gives a percentage outcome)			50%	Outcomes above 50 percent equal a positive outcome for this category, while that below equals a negative outcome for health. This informs the tick box Summary Table outlined in Stage 3 of the Checklist.

Issue	Included in proposal	Details and evidence	Potential health impact	Action or mitigation required
1.4 Air Quality, Noise and Neighbourhood Amenity				
Does the proposal minimise construction impacts (including dust and noise)?	☒ Yes ☐ No ☐ N/a	D13.81 Mitigation measures for Construction dust itemised.	☐ n/a ☒ no diff ☐ -ve ☐ +ve	PCT needs assurance that the MVV proposal with regard to Construction Dust and Noise, will respond to community concerns and mitigate accordingly.
Does the proposal minimise air pollution?	☐ Yes ☒ No ☐ N/a	Increased traffic volumes during construction and plant operation along with plant emissions will add to background air pollution, although a EA permit would regulate emissions.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that the MVV proposal requires all vehicles servicing the site meet lowest emission standards for all vehicles.
Does the proposal minimise noise pollution?	☐ Yes ☒ No ☐ N/a	D14.1 construction noise mitigation measures are identified, plant design to maximise sound attenuation is identified, however, noise levels will increase.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that the MVV proposal would respond to any public complaints of noise of the Plant in construction or operation in a responsive manner.
Does the proposal promote good air quality (through for example planting of trees or provision of green/brown roofs etc)?	☐ Yes ☒ No ☐ N/a	Brown roof on workshop building to promote biodiversity plus tree planting and provision of Devon hedgerow in neighbouring area aim to minimise negative impact on air quality but on balance the proposal would cause a deterioration in air quality	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that the MVV proposal would consider where practicable additional tree planting and provision of green/brown roofs within the plant complex and buildings and the neighbouring areas.
Does the proposal protect and enhance green space?	☒ Yes ☐ No ☐ N/a	Environmental improvements to Blackie Woods and Weston Mill Creek.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance that the MVV proposal will consider all opportunities for accompanied field visits to Weston Mill Creek for educational and environmental purposes.
Does the proposal provide high quality amenity space?	☒ Yes ☐ No ☐ N/a	The provision of a Visitors Centre and community facilities.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance that the MVV proposal has considered potential impacts upon existing Community facilities, i.e. Tamar View. PCT needs assurance that the MVV Visitor Centre/Facilities will provide added value for all sectors of the local community.
Overall positive impacts for this category (Add up the total number of positive impacts and divide by the number of relevant issues above and multiple by 100, this gives a percentage outcome)			30%	Outcomes above 50 percent equal a positive outcome for this category, while that below equals a negative outcome for health. This informs the tick box Summary Table outlined in Stage 3 of the Checklist.

Issue	Included in proposal	Details and evidence	Potential health impact	Action or mitigation required
1.5 Accessibility and Transport				
Does the proposal facilitate streetscape accessibility, legibility and permeability?	☒ Yes ☐ No ☐ N/a	Site designed to ensure a clear distinction between the operational waste management areas and the administrative and visitor areas. Visitors will be directed to the main building via pedestrian friendly access to external landscaped amenity areas	☐ n/a ☐ no diff ☐ -ve ☒ +ve	
Is the proposal including buildings, accessible for people with mobility problems or disability impairment?	☒ Yes ☐ No ☐ N/a	Compliant with DDA requirements.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	
Is the proposal easily accessible and well served by public transport?	☒ Yes ☐ No ☐ N/a	Locality well served by existing public bus services.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	
Does the proposal minimise the need to travel especially by car (e.g. by cutting down trips as result of good access or incorporation of local facilities)?	☒ Yes ☐ No ☐ N/a	During the construction phase measures to minimise staff travel by car have been identified.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance that the MVV proposal will where practicable, will continue with measures to minimise staff travel by car once the plant is operational.
Does the proposal incorporate measures to assist people who are car dependent (e.g. disabled Blue Badge holders etc)?	☒ Yes ☐ No ☐ N/a	Compliant with DDA requirements.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	
Does the proposal incorporate traffic calming measures aimed at reducing and minimising road traffic injuries (e.g. use of HomeZones and 30 mph limit)?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Overall positive impacts for this category (Add up the total number of positive impacts and divide by the number of relevant issues above and multiple by 100, this gives a percentage outcome)			100%	Outcomes above 50 percent equal a positive outcome for this category, while that below equals a negative outcome for health. This informs the tick box Summary Table outlined in Stage 3 of the Checklist.

2. Indirect Influences

Issue	Included in proposal	Details and evidence	Potential health impact	Action or mitigation required
2.1 Crime Reduction and Community Safety				
Has the proposal 'designed out crime'?	☐ Yes ☐ No ☐ N/a ☒ D/k	It is felt that this issue is not particularly relevant for this proposal.	☐ n/a ☒ no diff ☐ -ve ☐ +ve	
Does the proposal incorporate effective security and street surveillance?	☐ Yes ☐ No ☐ N/a ☒ D/k	It is felt that this issue is not particularly relevant for this proposal as it is within the secure HM Naval Base site	☐ n/a ☒ no diff ☐ -ve ☐ +ve	
Does the proposal incorporate a mix of uses to encourage activity in buildings and public spaces?	☒ Yes ☐ No ☐ N/a		☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance that the MVV Visitors Centre/Community Facilities are open and accessible for a wide range of activities at times convenient to the community at incentivised rates or free of charge for the local community.
Has the local community been engaged and consulted with regards to the proposal?	☒ Yes ☐ No ☐ N/a		☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance that the MVV is committed to developing and sustaining the Local Liaison Committee and the role of the Community Liaison Officer.
Overall positive impacts for this category (Add up the total number of positive impacts and divide by the number of relevant issues above and multiple by 100, this gives a percentage outcome)			100%	Outcomes above 50 percent equal a positive outcome for this category, while that below equals a negative outcome for health. This informs the tick box Summary Table outlined in Stage 3 of the Checklist.

Issue	Included in proposal	Details and evidence	Potential health impact	Action or mitigation required
2.2 Access to Healthy Food				
Does the proposal facilitate local access to healthy food supply?	☐ Yes ☒ No ☐ N/a	Not detailed in the MVV proposals.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that the MVV proposal will ensure that all food provided on-site is locally sourced with healthy options available.
Does the proposal avoid food being monopolised locally by a single provider?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Does the proposal avoid contributing towards over concentration of fast food outlets in the local area?	☐ Yes ☒ No ☐ N/a	Not detailed in the MVV proposals.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that the MVV proposal will not add to the provision of fast food outlets in the local area pre and post construction.
Does the proposal provide social enterprise support for local producers or retailers of nutritional and affordable food?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Does the proposal safeguard loss of allotments, good agricultural land, city farms or farmers markets from development?	☐ Yes ☐ No ☒ N/a	On a brown-field existing industrial site.	☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Does the proposal incorporate or facilitate access to healthy living centres?	☐ Yes ☐ No ☒ N/a	Not detailed in the MVV proposals, however awaiting response to 106 Obligations negotiations.	☒ n/a ☐ no diff ☐ -ve ☐ +ve	PCT needs assurance that the MVV proposal will consider in full the Section 106 Obligations
Overall positive impacts for this category (Add up the total number of positive impacts and divide by the number of relevant issues above and multiple by 100, this gives a percentage outcome)			0%	Outcomes above 50 percent equal a positive outcome for this category, while that below equals a negative outcome for health. This informs the tick box Summary Table outlined in Stage 3 of the Checklist.

Issue	Included in proposal	Details and evidence	Potential health impact	Action or mitigation required
2.3 Access to Work				
Does the proposal provide access to employment and training opportunities?	☒ Yes ☐ No ☐ N/a	New employment and apprenticeship opportunities.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance that the MVV proposal will provide a range of opportunities for skills development which could lead to employment, i.e. via volunteering opportunities at the Visitor Centre facility.
Does the proposal provide diversity in jobs for local residents?	☒ Yes ☐ No ☐ N/a	Range of employment opportunities provided via the plant.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	
Does the proposal provide childcare facilities?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Does the proposal provide opportunities for local businesses?	☒ Yes ☐ No ☐ N/a	Potentially supply of materials during construction phase. Provision of heating and power to Babcock and MOD within HM Naval Base provides opportunities for these undertakings	☐ n/a ☐ no diff ☐ -ve ☒ +ve	
Overall positive impacts for this category (Add up the total number of positive impacts and divide by the number of relevant issues above and multiple by 100, this gives a percentage outcome)			100%	Outcomes above 50 percent equal a positive outcome for this category, while that below equals a negative outcome for health. This informs the tick box Summary Table outlined in Stage 3 of the Checklist.

Issue	Included in proposal	Details and evidence	Potential health impact	Action or mitigation required
2.4 Social Cohesion and Social Capital				
Does the proposal contribute towards opportunities for social interaction?	☐ Yes ☐ No ☐ N/a	The MVV proposal includes improved access to Blackie Woods and the provision of a local visitor centre.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance that the MVV proposal will ensure that improved access to Blackie Woods and the provision of a local visitor centre will enable quality opportunities for social interaction by local communities.
Has the proposal addressed local inequalities?	☐ Yes ☒ No ☐ N/a	The MVV proposal notes existing health inequalities.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that the MVV proposal will not exacerbate health inequalities and will consider in full the Section 106 Obligations
Does the proposal advance mixed communities by having a mix of tenures and uses?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Does the proposal incorporate community facilities?	☒ Yes ☐ No ☐ N/a	Yes, via Visitor Centre & Blackie Woods	☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance that the MVV Visitors Centre/Community Facilities are open and accessible for a wide range of activities at times convenient to the community at incentivised rates or free of charge for the local community.
Does the proposal provide voluntary sector opportunities?	☐ Yes ☒ No ☐ N/a	Not detailed in the MVV proposals.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that the MVV proposal will provide opportunities for local voluntary sector use, i.e. use of Visitor Centre facilities for voluntary sector.
Does the proposal avoid community severance (by major roads, large commercial schemes etc)?	☐ Yes ☐ No ☒ N/a		☒ n/a ☐ no diff ☐ -ve ☐ +ve	
Overall positive impacts for this category (Add up the total number of positive impacts and divide by the number of relevant issues above and multiple by 100, this gives a percentage outcome)			50%	Outcomes above 50 percent equal a positive outcome for this category, while that below equals a negative outcome for health. This informs the tick box Summary Table outlined in Stage 3 of the Checklist.

Issue	Included in proposal	Details and evidence	Potential health impact	Action or mitigation required
2.5 Resource Minimisation				
Does the proposal make best use of existing land?	☐ Yes ☒ No ☐ N/a	The solution proposed by MVV Umwelt is for an Energy from Waste facility located on a site owned by the MOD located within the Devonport Royal Naval Dockyard. This site is located within Plymouth City boundaries but is not allocated within the Council's Waste Development Plan Document as a suitable waste site.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance from the Planning Authority that the MVV Proposal is acceptable in planning policy terms.
Does the proposal encourage recycling (including building materials)?	☐ Yes ☒ No ☐ N/a	The MVV proposal recognises the potential to impact negatively upon recycling rates in the area. However the proposal is for a recognised renewable energy resource.	☐ n/a ☒ no diff ☐ -ve ☐ +ve	Plymouth City Council has provided written assurance that the proposal is part of an integrated waste management strategy where strenuous efforts to significantly increase the level of materials recycled in the area will be ongoing. This assurance needs to be realised to ensure there is no negative impact.
Does the proposal incorporate sustainable design and construction?	☒ Yes ☐ No ☐ N/a		☐ n/a ☐ no diff ☐ -ve ☒ +ve	
Are waste management facilities incorporated within the proposal?	☐ Yes ☒ No ☐ N/a	The MVV proposal does not detail arrangements for the management of waste generated on site although there is a legal duty of care to manage such waste.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance that MVV will fulfil their duty of care to manage waste created on site and to minimise resource use and maximise recycling and reuse of materials.
Have Environmental Health, Environment Agency or Health Protection Agency been informed about potential hazards related to the proposal?	☒ Yes ☐ No ☐ N/a		☐ n/a ☒ no diff ☐ -ve ☐ +ve	
Overall positive impacts for this category (Add up the total number of positive impacts and divide by the number of relevant issues above and multiple by 100, this gives a percentage outcome)			20%	Outcomes above 50 percent equal a positive outcome for this category, while that below equals a negative outcome for health. This informs the tick box Summary Table outlined in Stage 3 of the Checklist.

Issue	Included in proposal	Details and evidence	Potential health impact	Action or mitigation required
2.6 Climate Change				
Does the proposal incorporate renewable energy?	☒ Yes ☐ No ☐ N/a	This is a proposal for a combined heat and power energy from waste plant.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	
Does the proposal provide a sustainable approach to transport?	☐ Yes ☒ No ☐ N/a	Not detailed in the MVV proposals.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance from MVV that all sustainable transport options for transporting waste (to the site and waste materials from site) have been considered.
Does the proposal maintain or enhance biodiversity?	☒ Yes ☐ No ☐ N/a	Expected beneficial effects through enhancement of Blackie Woods, replacement of culverts and cleaning up of streams.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance from MVV that the expected benefits to bio-diversity are realised.
Has the proposal been flood risk assessed?	☒ Yes ☐ No ☐ N/a	Flood risk assessment has been conducted; the majority of the site is considered low risk of flooding.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	
Does the proposal incorporate sustainable drainage systems to safely deal with surface runoff?	☒ Yes ☐ No ☐ N/a	Proposal incorporates measures to deal with increased surface water run-off.	☐ n/a ☐ no diff ☐ -ve ☒ +ve	PCT needs assurance from MVV that surface water drainage strategy poses no risk to the development or third parties.
Overall positive impacts for this category (Add up the total number of positive impacts and divide by the number of relevant issues above and multiple by 100, this gives a percentage outcome)			80%	Outcomes above 50 percent equal a positive outcome for this category, while that below equals a negative outcome for health. This informs the tick box Summary Table outlined in Stage 3 of the Checklist.

Additional Question

Issue	Included in proposal	Details and evidence	Potential health impact	Action or mitigation required
Additional question relating to a full and independent assessment using the Building Research Establishment's Environmental Assessment Method http://www.breeam.org/				
Has the proposal been subjected to an independent BREEAM assessment?	☐ Yes ☒ No ☐ N/a	Not detailed in the MVV proposals.	☐ n/a ☐ no diff ☒ -ve ☐ +ve	PCT needs assurance from MVV that the EfW plant design will be subjected to a full and independent environmental assessment using tailored BREEAM criteria to assess the environmental lifecycle of the construction/plant including health and wellbeing considerations.

Feedback: A key purpose of Watch Out for Health is as a tool to improve policies, projects and planning applications so as to not only better consider health but also help realise actual positive outcomes from implementation. Going through the Checklist at Stage 2 should enable you to come up with an appreciation and assessment of the extent to which health has been covered in a plan, project or proposal. A simple overview can be gained by using Table 3 below in relation to the two main sections (i.e. direct and indirect influences) analysed.

Table 3: Summary overview

1. Direct influences			
Category	Positive (✓)	Negative (✓)	Not applicable/ Neutral (✓)
1.1 Housing		(✓)	
1.2 Access to Public Services		(✓)	
1.3 Opportunities for Physical Activity			(✓)
1.4 Air Quality, Noise and Neighbourhood Amenity		(✓)	
1.5 Accessibility and Transport	(✓)		
Overall Impact		(✓)	

2. Indirect Influences			
Category	Positive (✓)	Negative (✓)	Not applicable/ Neutral (✓)
2.1 Crime Reduction and Community Safety	(✓)		
2.2 Access to Healthy Food		(✓)	
2.3 Access to Work	(✓)		
2.4 Social Cohesion and Social Capital			(✓)
2.5 Resource Minimisation		(✓)	
2.6 Climate Change	(✓)		
Overall Impact	(✓)		

Appendix 2: Health Profile of Plymouth (Summary)

“Health Profiles” is the Department of Health’s programme to improve availability and accessibility to health and health-related information in England. The profiles give a snapshot overview of health for each local authority in England. Health Profiles are produced annually by the Public Health Observatories in England working in partnership and are commissioned by the Department of Health. The latest profile for Plymouth is embedded here for information. It shows that the health of people in Plymouth is generally worse than the England average. Deprivation is higher than average and life expectancy for men is lower than the England average. It notes that the priorities in Plymouth include improving health overall, reducing health inequalities and working with partners to make Plymouth a fairer place to live.



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Source: Department of Health. ©Crown Copyright 2011

The Plymouth data on life expectancy and early deaths from Cancer and Circulatory Disease are provided below;

Life expectancy	Plymouth Male	77.2 years
	England Average	78.3 years
	England Worst	73.7 years
	England Best	84.4 years
	Plymouth Female	82.0 years
	England Average	82.3 years
	England Worst	79.1 years
	England Best	89.0 years

Early Deaths from Cancer (Direct Age Standardised Rate per 100,000 under 75s 2007-09)

Plymouth	116.3
England Average	112.1
England Worst	159.1
England Best	76.1

Early Deaths from Heart Disease and Stroke (Direct Age Standardised Rate per 100,000 under 75s 2007-09)

Plymouth	82.1
England Average	70.5
England Worst	122.1
England Best	37.9

Plymouth Health Profile Data

Local health data has been used to consider the current health status of the local population and in particular those people living in the 5 neighbourhoods closest to the proposed Energy from Waste plant i.e. Barne Barton, Keyham, Kings Tamerton and Weston Mill, North Prospect and St Budeaux. The current ranking of these neighbourhoods for the Index of Multiple Deprivation is also provided.

Index of Multiple Deprivation 2010

Neighbourhood	IMD Score	Ranking
Barne Barton	43.2	5 th
Keyham	30.6	14 th
Kings Tamerton and Weston Mill	28.8	17 th
North Prospect	50.1	3 rd
St Budeaux	32.1	13 th
Plymouth City Average	25.9	

Mortality Data (Direct Age Standardised Rates per 100,000 population)

All Cause Mortality 2009

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	903.1	542.0
Keyham	614.2	325.0
Kings Tamerton and Weston Mill	686.2	415.5
North Prospect	699.8	417.2
St Budeaux	595.2	268.0
Plymouth City Average	590.5	299.2

All Circulatory Disease Mortality 2009

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	479.9	224.3
Keyham	169.2	41.8
Kings Tamerton and Weston Mill	229.1	126.7
North Prospect	280.0	152.7
St Budeaux	197.2	68.9
Plymouth City Average	181.7	77.8

Stroke Mortality 2009

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	157.8	35.7
Keyham	15.4	0
Kings Tamerton and Weston Mill	13.2	0
North Prospect	18.2	0
St Budeaux	46.0	25.4
Plymouth City Average	40.3	12.4

Coronary Heart Disease Mortality 2009

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	205.5	112.4
Keyham	70.2	22.4
Kings Tamerton and Weston Mill	159.9	92.8
North Prospect	144.0	43.1
St Budeaux	103.3	43.5
Plymouth City Average	81.6	37.2

All Cancers Mortality 2009

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	197.1	160.0
Keyham	194.5	169.7
Kings Tamerton and Weston Mill	235.3	206.9
North Prospect	245.3	162.6
St Budeaux	180.9	104.0
Plymouth City Average	180.2	112.5

Respiratory Diseases 2009

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	73.5	44.0
Keyham	100.2	22.4
Kings Tamerton and Weston Mill	92.9	36.7
North Prospect	71.3	42.2
St Budeaux	40.5	0
Plymouth City Average	61.8	18.6

Morbidity Data (Direct Age Standardised Rates per 100,000 population)

All A & E Attenders 2010/11

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	24421.3	24337.8
Keyham	27356.0	27334.7
Kings Tamerton and Weston Mill	22152.7	21940.6
North Prospect	27209.5	26700.3
St Budeaux	24053.1	23856.3
Plymouth City Average	21342.6	20851.5

A & E Attenders for Respiratory Problems 2010/11

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	1137.8	1185.2
Keyham	1127.6	1106.4
Kings Tamerton and Weston Mill	1027.5	1003.2
North Prospect	1712.7	1363.1
St Budeaux	1082.7	1029.4
Plymouth City Average	933.5	865.5

Hospital Admissions for Circulatory Diseases 2010/11

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	1017.6	806.8
Keyham	667.6	557.4
Kings Tamerton and Weston Mill	565.1	428.2
North Prospect	719.6	506.4
St Budeaux	737.9	600.1
Plymouth City Average	710.5	507.4

Hospital Admissions for Respiratory Diseases 2010/11

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	1504.2	1490.5
Keyham	1303.1	1255.1
Kings Tamerton and Weston Mill	1477.2	1405.4
North Prospect	2213.5	1690.4
St Budeaux	1452.2	1392.6
Plymouth City Average	1190.6	1051.8

All Elective Admissions 2010/11

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	12852.4	11990.8
Keyham	14358.1	13806.7
Kings Tamerton and Weston Mill	10964.8	10064.7
North Prospect	9564.2	8792.2
St Budeaux	10264.1	9486.4
Plymouth City Average	9839.0	8947.6

All Emergency Admissions 2010/11

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	11399.6	10699.7
Keyham	10839.3	10313.8
Kings Tamerton and Weston Mill	9909.6	9220.5
North Prospect	12005.3	10840.6
St Budeaux	9478.7	8751.6
Plymouth City Average	8900.4	7961.6

New Outpatient Referrals 2010/11

Neighbourhood	DASR All Age	DASR < 75
Barne Barton	37401.5	36275.6
Keyham	45426.2	45160.2
Kings Tamerton and Weston Mill	34909.4	33809.5
North Prospect	36349.8	35269.8
St Budeaux	35426.8	34536.9
Plymouth City Average	31775.8	30679.1

From Plymouth Health Visitor Survey Data 2010

Percentage of Vulnerable Families within neighbourhood

Neighbourhood	%
Barne Barton	35
Keyham	11
Kings Tamerton and Weston Mill	21
North Prospect	24
St Budeaux	20
Plymouth City Average	12

Percentage of families dependent on benefits

Neighbourhood	%
Barne Barton	49
Keyham	13
Kings Tamerton and Weston Mill	28
North Prospect	24
St Budeaux	32
Plymouth City Average	20

Barne Barton has other particular problems identified in the Health Visitor Survey

Problem Area	Barne Barton %	Plymouth City %
Depressed and mentally ill parents	19.7	9.1
Child protection problems	19.7	2.7
Parenting Problems	11.3	5.0
Violence in the family	26.4	10.6
One parent families	29.0	12.4
Main wage earner unemployed	29.0	11.5

Appendix 3: Brief Literature Review

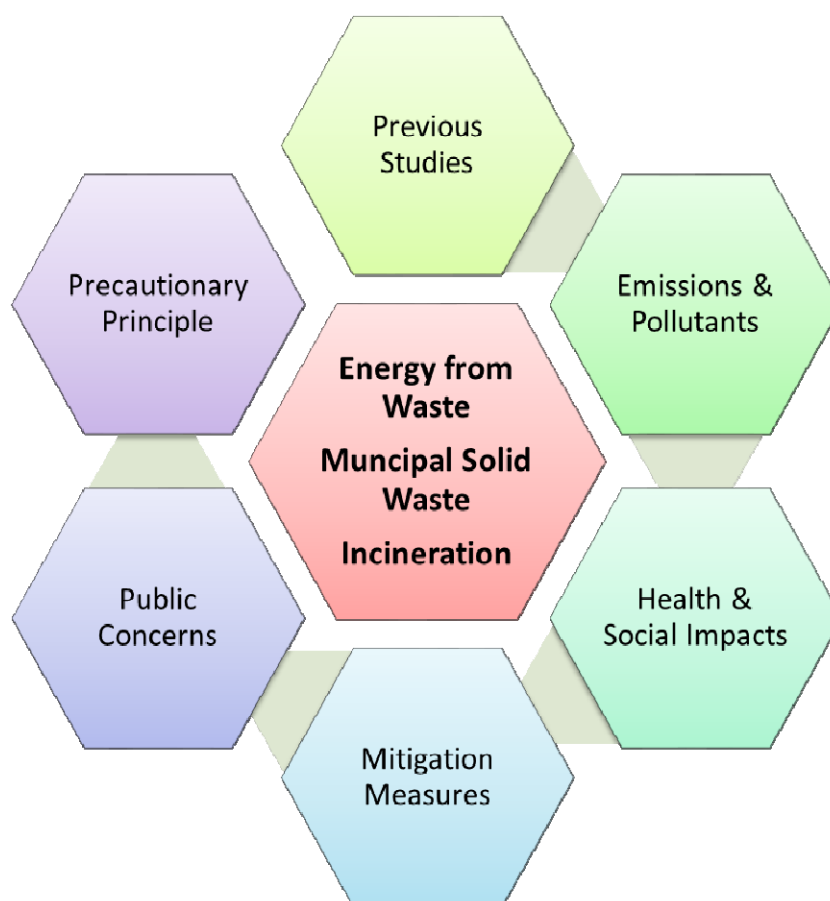
Energy from Waste Incineration:

A brief review of selected published and grey literature

Introduction

This brief literature review of Energy from Waste (EfW) impact on health has been conducted to inform a desk-top health impact assessment of the proposed EfW incineration plant in Plymouth. The review has drawn together headline findings from secondary literature sources to summarise published impacts on health arising from EfW incineration. The sources for this literature review were identified via a Scirus search using the key words: 'health impacts assessment waste incineration ("energy recovery")'. Online searches of the Health Impact Assessment (HIA) Gateway www.apho.org.uk/default.aspx?QN=P_HIA, the HIA Wiki Community Knowledge site <http://healthimpactassessment.pbworks.com/> and the World Health Organisation HIA site www.who.int/hia/en produced other relevant publications and documents for the literature review.

The review considers six themes arising from the selected literature (see below).



Six themes arising from the EfW literature review

Summary Findings from the Literature Review

Previous Studies of Incineration summary: The majority of epidemiological studies have focused on older generations of incinerators and not the more modern Energy from Waste (EfW). Previous studies are based upon incineration and the associated health effects but have tended not to distinguish between older mass burn plants without energy recovery, and the more modern and better managed and controlled EfW plants. Comparing previous studies of incinerators to more modern EfW plants with regard to health impacts is therefore problematic. The WHO (2007) point out that stack emissions from modern plants are much reduced compared to old generation plants.

Emissions summary: This section of the literature review highlights that the main difference between modern incinerators and, for example, power-stations is that incinerators tend to have more sophisticated pollution abatement technologies. If the short-term peak concentrations lie within health-based air quality standards it is unlikely that significant adverse health effects will occur. For dioxins and furans direct exposure through inhalation is a small contributor to exposure, which is dominated by exposure through foodstuffs. Calculation of dioxin and furan transfers through the food chain into home-grown produce indicates that the maximally exposed individuals around a modern incinerator receive well under 1% of their total dioxin intake as a result of incinerator emissions. The HPA's review of the research examining the links between emissions from municipal waste incinerators and effects on health suggests that while it is not possible to rule out adverse health effects from modern, well regulated municipal waste incinerators with complete certainty, any potential damage to the health of those living close-by is likely to be very small, if detectable.

Health and Social Impacts of MSW Incineration summary: Measuring and determining health and social impacts associated with EfW incineration is problematic; when considering the health effects of an individual facility, it is important to take account of the local circumstances and any evidence of sensitivity of local residents to the health effects of concern. Government reports indicate that the impact on human health from EfW emissions is minor and the emission limits are far stricter than for other forms of electricity generation; however concern over health effects is most frequently cited in connection with incinerators. Atmospheric dispersion modelling studies have indicated that emissions to air from MSW management are not likely to give rise to significant increases in the adverse health effects studied and estimated incremental increase in cancers due to emissions to air from treatment and disposal of MSW is lower still. The review conducted by the Health Protection Agency (2009) therefore argued that calculating the environmental costs of different waste disposal options is not simple, nor is there a single established method.

Public concern summary: This section of the literature review suggests that waste authorities cannot achieve their objectives without public support; the audit Commission recognises that local concerns are influential in decisions on planning permission for waste facilities; the effectiveness of recycling and composting collections are dependent on the extent and quality of public participation; and action by the public to reduce and reuse their waste will decrease the quantity of waste and reduce service costs. The DEFRA review suggests that modern, well-managed incinerators can be an effective means of reducing and disposing of waste materials. However, there is often considerable public concern over the

possible health effects of living near to incinerators processing hazardous, clinical or municipal waste.

Mitigation measures summary: In summary mitigation measures are best secured through the active participation of the local community in which the EfW incinerator will be located; community engagement in a health impact assessment has proved an effective method to articulate community and health impacts and of raising awareness of a range of possible mitigation measures.

Precautionary principle summary: The WHO Scientific Report (2007) argues that the health impact of waste management procedures cannot yet be properly evaluated, because of the limitations of the current state of knowledge. Other reports argue that the absence of evidence of harm or impact is not evidence of absence. Priority-setting for environmental remediation should be based on hazard detection, estimation of the size of the exposed population (including vulnerable groups) and appreciation of inequity in the distribution of exposure among population subgroups, taking into account the possibility of higher exposure of socioeconomically deprived groups. Levels of uncertainty are compounded in conditions of cumulative exposure of many chemicals from many sources; the precautionary principle should therefore apply as the overriding concern.

Reviewing selected literature

Managing Waste in the UK.

The UK produces over 400 million tonnes of waste every year. Of this, 28 million tonnes is municipal solid waste (MSW), most of which is disposed of to landfill. As a result of the Landfill Directive new ways of dealing with MSW are needed to reduce the level of waste being taken to landfill. Incineration is one of the options available. The Government issues planning guidance for waste planning authorities. It also requires waste management strategies to be prepared on a regional and local level. The inclusion of incineration is not prescriptive and it is up to individual authorities to determine the need for new incinerators. Estimates for the number of new incinerators that may need to be built by 2020 vary from 21 to 104 (The Parliamentary Office of Science and Technology (POST) 2000).

The Environment Agency (EA) in England and Wales, and the Scottish Environment Protection Agency (SEPA) regulate releases to the environment from MSW incinerators under the integrated pollution control (IPC) regime. Releases must be prevented or reduced to a minimum using the 'best available techniques not entailing excessive cost'. When authorising processes, the EA and SEPA impose limits on a range of substances released to air water and land, together with conditions on operation (e.g. regular monitoring). MSW incinerators were first authorised under IPC in 1993, and new EU standards imposed in 1996, resulting in the closure of many older incinerators. A new EU waste incineration directive (agreed in 2000), introduces tighter standards, including an emission limit on dioxins of 0.1 nanogrammes⁶ of TEQ per cubic metre of exhaust gas (ngTEQ/m³) – equivalent to 100pgTEQ/m³ (Box 3). The incineration directive requires that new incinerators comply with the standards from 2003 and existing plant from 2007. The siting of incinerators is regulated under the land use system, where the operator must obtain permission from the local planning authority. In determining the planning application, the local authority must have regard for, among other things, environmental impacts, and hence requires the developer to produce an environmental impact statement. In addition, the local authority will consult the environmental regulator (EA or SEPA). The recent Pollution Prevention and Control Regulations will require closer coordination and consultation between the environmental regulators and local authorities responsible for land use control. Increasingly, local authorities are developing waste local plans in a regional context, taking account of regional planning guidance (The Parliamentary Office of Science and Technology (POST) 2000).

Previous Health Impact Studies of Incinerators

Several publications discuss the limitations of previous studies of MSW incinerators when trying to draw comparisons to modern MSW incinerators; these are discussed briefly below.

The Chartered Institute for Waste Management (CIWM 2003) review states that the vast majority of epidemiological studies have focused on older generations of incinerators and not the more modern Energy from Waste (EfW). The CIWM argue that previous studies are based upon incineration and the associated health effects but have tended not to distinguish between older mass burn plants without energy recovery, and the more modern and better managed and controlled EfW plants. Care must therefore be taken in reviewing and interpreting the results of relevant research work. Pyrolysis and gasification technologies are relatively new and studies of health effects specific to plants using these technologies have

yet to be undertaken. Birley (Birley M, Abrahams D et al. 2008) however adds that although most literature about waste incineration relates to “old type” facilities with significantly different emissions profiles and that newer EfW plants have to meet stricter controls and therefore are significantly cleaner it does not mean that there are no health effects from “new type” waste incineration facilities, but that there is as yet, little robust evidence relating to them and the evidence at the moment cannot establish a causal relationship. This may be due to limitations in the data available, or the effects of confounding factors, such as exposure to other emissions (e.g. traffic), population, socio-economic and lifestyle factors. The CIWM (2003) argue further that previous studies have looked for spatial patterns in three categories of disease viz, cancer, respiratory and reproductive diseases. A typical approach is to construct concentric bands around an incinerator looking for differences in the prevalence of disease, with proximity used as a surrogate for pollutant exposure. There are a number of difficulties and drawbacks associated with this approach, not least of which is that there is frequently a gradient in the social make-up of populations such that there is a higher level of deprivation, itself associated with a higher frequency of disease irrespective of the presence of the incineration plant, closer to the plant compared with further away. Studies which have carefully controlled for so-called socio-economic confounding have generally failed to find any convincing evidence of an adverse health outcome associated with living in close proximity to an incineration plant.

Comparing previous studies of incinerators to more modern EfW plants with regard to health impacts is therefore problematic. The WHO (2007) point out that stack emissions from modern plants are much reduced compared to old generation plants. The few studies carried out on new generation incinerators are difficult to compare with the previous ones, because of these differences in technology between the plants. The adoption of the BAT, enforced by the EU, results in the fact that the occurrence of measurable health effects on populations resident in close proximity of new generation incinerators is becoming less likely. However their overall impact on the general environment and on human health through indirect mechanisms of action, has not been evaluated yet. In particular waste incineration, currently on the increase in many countries, may be a nonnegligible contributor of greenhouse gases and persistent pollutants on a global scale.

Emissions of incinerator plants

The following papers and publications considered by this literature review discuss research with regard to emissions of incinerator plants.

Research by Bond, Fawell et al. (2005) suggests that newly constructed incinerator plants have to meet stricter controls on emissions than those operating prior to the mid 1990s. Analyses of cancer incidence associated with the older generation of incinerators demonstrates that any potential risk of cancer, due to residency for periods in excess of ten years near to municipal solid waste incinerators, is exceedingly low and probably not measurable. They go on to state that data on emissions and ambient air monitoring in the vicinity of incinerators indicates that modern well-managed waste incinerators will only make a very small contribution to background levels of air pollution. However they argue that Robust epidemiological data concerning health risks associated with exposure to bioaerosols are not available. (Jamاسب, Kiamil et al. 2008) argue that EfW plants emit some pollutants,

which include sulphur dioxide, lead, and dioxins which are linked with damage to health and the environment if they occur in high enough concentrations.

Liamsanguan and Gheewala (2006) state “Although incineration of MSW is an attractive option for disposal, it has some problems related to the emission of dioxins. Dioxin is the term commonly used to refer both polychlorinated dibenzo-p-dioxins (PCDDs) and poly chlorinated dibenzofurans (PCDFs). Dioxins are types of highly toxic chemicals considered harmful to human health. People exposed to large amount of dioxins experience a skin disease called chloracne. Some studies have shown that high exposures also may contribute to the development of liver, kidney, heart, thyroid and blood disorders, as well as adult onset of diabetes and cancer. Dioxins could be formed as trace by-products in combustion systems like incineration as well as burning of various fuels where chlorine, carbon, hydrogen and oxygen come into contact with heat. Dioxins are an indirect result of incomplete combustion, being formed mainly in the post-combustion zone due to the catalytic reaction of chlorine and products of incomplete combustion on the surface of ash in the temperature range of 250 to 400°C.”

The CIWM’s Good Practice Guide (2003) states “Incineration emits a wide range of typical combustion-generated pollutants in line with other major combustion plant. The main difference between modern incinerators and, for example, power stations is that incinerators tend to have more sophisticated pollution abatement technologies. The most important pollutant emissions include sulphur dioxide, oxides of nitrogen, particulate matter, hydrogen chloride, hydrogen fluoride, a range of trace metals, dioxins and furans. Estimation of the impact involves calculation of both short-term and long-term average ground level concentrations. If the short-term peak concentrations lie within health-based air quality standards it is unlikely that significant adverse health effects will occur. The long-term concentrations are nonetheless associated with adverse health effects which can be calculated using exposure-response functions which have generally been determined from air pollution epidemiology involving entire urban populations exposed to pollutants predominantly from road traffic. Such calculations demonstrate that an EfW plant will generally be associated with less than one additional hospital admission for respiratory or cardiovascular disease and less than one death brought forward per year. Calculation of population exposures to chemical carcinogens including arsenic, nickel, chromium and PAH shows a negligible impact on cancer rates. For dioxins and furans direct exposure through inhalation is a small contributor to exposure, which is dominated by exposure through foodstuffs. Calculation of dioxin and furan transfers through the food chain into home-grown produce indicates that the maximally exposed individuals around a modern incinerator receive well under 1% of their total dioxin intake as a result of incinerator emissions. Since the tolerable daily intake for dioxins is designed to be protective against both reproductive and cancer effects, it is unlikely that exposure as a result of incinerator emissions is a significant contributor to these diseases”.

The Health Protection Agency (2009) has reviewed research undertaken to examine the suggested links between emissions from municipal waste incinerators and effects on health. While it is not possible to rule out adverse health effects from modern, well regulated municipal waste incinerators with complete certainty, any potential damage to the health of those living close-by is likely to be very small, if detectable. This view is based on detailed

assessments of the effects of air pollutants on health and on the fact that modern and well managed municipal waste incinerators make only a very small contribution to local concentrations of air pollutants. The Committee on Carcinogenicity of Chemicals in Food, Consumer Products and the Environment has reviewed recent data and has concluded that there is no need to change its previous advice, namely that any potential risk of cancer due to residency near to municipal waste incinerators is exceedingly low and probably not measurable by the most modern techniques. Since any possible health effects are likely to be very small, if detectable, studies of public health around modern, well managed municipal waste incinerators are not recommended.

The WHO (2007) Scientific Review of population health and waste management however says that as to the possible health effects of incinerators, reasons for concern are inhalation of airborne pollutants resulting from combustion and from incomplete combustion, consumption of contaminated foods and water, or contact with contaminated soil. Information on the presence of hazardous agents in the vicinity of an incinerator is not easily translated into useful exposure measures. Compared to landfills, fewer epidemiological studies are available. While some positive studies exist, the evidence is, overall, not conclusive to establish the occurrence and magnitude of risks. The evidence is inadequate to draw conclusions that can be used to determine optimal policy choices on incineration: relatively few good quality studies exist and they refer mostly to old generation incineration plants – an important distinction, as stack emissions from modern plants are much reduced compared to old generation plants. The adoption of emission-abating technology, enforced by the European Union (EU), has resulted in a less likely occurrence of measurable health effects on populations resident in the proximity of new generation incinerators. The review commissioned by DEFRA (Enviros Consulting Ltd, University of Birmingham et al. 2004) state that they found no consistent evidence for significantly elevated levels of ill-health in populations potentially affected by emissions from Municipal Solid Waste (MSW) incineration.

Assessing Health and Social Impacts of Municipal Solid Waste Incineration

This section of the review draws together selected published and grey literature with regard to assessing the health and social impacts of municipal solid waste incineration.

When considering the health effects of an individual facility, it is important to take account of the local circumstances and any evidence of sensitivity of local residents to the health effects of concern (Enviros Consulting Ltd, University of Birmingham et al. 2004). Bond, Fawell et al. (2005) argue that most epidemiological investigations with regard to assessing the health impacts of waste management have been based on spatial patterns of morbidity or mortality and they note that confounding factors, such as deprivation, have been insufficiently quantified to permit scientifically robust conclusions on disease causation, let alone providing credible dose-response relationships. This approach to epidemiological studies of MSW incineration is perfectly reasonable due to ethical reasons as (Giusti 2009) reminds us that epidemiological studies dealing with the impact of waste management activities on human health are observational, as opposed to experimental studies.

Roberts and Chen (2006) highlight the measurement challenges associated with assessing impact on health of MSW, e.g. they note that anxiety, employment, noise, occupational risks, road accidents, and reduced use of landfill were all considered to have a potential, but

unquantifiable, effect on health. Other challenges to effective measurement are highlighted by Guisti (2009) says that although incinerators can potentially emit a number of pollutants the main concern about incinerators has been the emission of a group of persistent organic compounds known as “dioxins”, more specifically polychlorinated dibenzo-p-dioxins (PCDDs), polychlorinated dibenzofurans (PCDFs), and polychlorinated biphenils (PCBs). PCDDs and PCDFs however these are produced by all combustion processes, and mostly by incomplete combustion of municipal waste, medical waste, household waste, by forest fires, by burning wood and coal, during the manufacture of pesticides and other chemicals, and are present in tobacco smoke and car exhaust These substances are quite resistant to biodegradation, they accumulate in food (dairy products, eggs, fish, animal fat), and many are considered to be toxic. Guisti therefore argues that the complications faced by health impact investigators is due to the wide range of potential sources, and some of the possible causes of confounding factors in epidemiological studies. Jamasb, Kiamil et al. (2008) highlight that the local population will experience health effects or congestion from vehicles transporting the waste to the plant site

Jamasb, Kiamil et al. (2008) also argue that some interest groups dispute the government’s findings, and health concerns remain a sticking point during many EfW plant applications due to the perceptions of local residents. In some cases, plants which have secured a PPC licence have been refused planning permission on the grounds that the perception of effects would negatively affect the use of the surrounding land (CIWM, 2003). Government reports indicate that the impact on human health from EfW emissions is minor (Enviros Consulting Ltd, University of Birmingham et al. 2004) and the emission limits are far stricter than for other forms of electricity generation.

Giusti (2009) cites the commissioned DEFRA review (Enviros Consulting Ltd, University of Birmingham et al. 2004) of 102 publications and concluded that there is no convincing evidence of a link between incineration and cancer or respiratory problems. Giusti goes onto reiterate that main exposure to dioxin-like substances is via food (seafood, dairy products, animal fats and eggs) contaminated with PCDDs and PCDFs.

The 2007 Waste Strategy for England (DEFRA 2007) states that concern over health effects is most frequently cited in connection with incinerators. Research carried out to date shows no credible evidence of adverse health outcomes for those living near incinerators. The relevant health effects – primarily cancers – have long incubation times, but the available research demonstrates an absence of symptoms relating to exposures twenty or more years ago, when emissions from incineration were much greater than they are now. Very demanding EU standards for dioxin emissions now apply.

The DEFRA review (Enviros Consulting Ltd, University of Birmingham et al. 2004) highlights that atmospheric dispersion modelling studies indicates that emissions to air from MSW management are not likely to give rise to significant increases in the adverse health effects studied. On a national scale, approximately 5 hospital admissions per year are estimated to arise due to emissions to air from treatment and disposal of MSW. Although this numerical estimate is of poor quality, it is indicative of a much lower incidence of hospital admissions compared to the 168,000 hospital admissions per year which result from accidents in the home. Similarly, emissions from treatment and disposal of MSW are estimated to result in

approximately one death being brought forward nationally every two years. This single statistical value is somewhat misleading, as the effect corresponds to a slight shortening of numerous individual lives. The numerical value is also of poor quality. The estimated incremental increase in cancers due to emissions to air from treatment and disposal of MSW is lower still. The effects would not be detectable in individuals.

The Royal Town Planning Institute (2009) reminds us that children are particularly sensitive to the harmful effects of environmental hazards; they breathe more air, drink more water, and eat more food relative to their size than adults. Children in deprived areas are most exposed to harmful environmental conditions/factors.

The review conducted by the Health Protection Agency (2009) argued that calculating the environmental costs of different waste disposal options is not simple, nor is there a single established method. All assessments require assumptions to be made. But evaluating the social costs of different options is a vital part of the strategy process. These costs typically include: impact on air quality from gaseous emissions such as carbon dioxide, methane and nitrogen dioxide, and particulates; transport-related effects including energy costs, traffic movements, and road safety issues; and issues such as odour, health risks, visual amenity and noise. Also, the local population will experience health effects or congestion from vehicles transporting the waste to the plant site (Jamasp T, Kiamil H, et al. 2008)..

With regard to disamenity Jamasp, Kiamil et al. (2008) suggest that local residents may experience some consequences from having a EfW plant in the neighbourhood as these are often perceived as 'unsightly' or produces odours; valuing the disamenity from waste landfill and incineration facilities however has yet to be undertaken in the UK (Brisson and Pearce 1995). The WHO (2007) scientific report supports the view of Brisson and Pearce (1995) that the overall impact on the general environment and on human health through indirect mechanisms of action has not yet been evaluated.

Public Concern of waste incineration

Waste authorities cannot achieve their objectives without public support. The audit Commission (2008) recognises that local concerns are influential in decisions on planning permission for waste facilities; the effectiveness of recycling and composting collections are dependent on the extent and quality of public participation; and action by the public to reduce and reuse their waste will decrease the quantity of waste and reduce service costs (Audit Commission 2008).

The DEFRA review (Enviros Consulting Ltd, University of Birmingham et al. 2004) suggests that modern, well-managed incinerators can be an effective means of reducing and disposing of waste materials. However the by-products of the combustion process may contain hazardous or toxic pollutants and emissions will add to background pollution levels. As a result, there is often considerable public concern over the possible health effects of living near to incinerators processing hazardous, clinical or municipal waste.

Giusti (2009) paper discusses that as science and technology developed, the management of an ever increasing volume of waste became a very organised, specialised and complex activity. The characteristics of waste material evolved in line with changes in lifestyle, and the

number of new chemical substances present in the various waste streams increased dramatically. The long-term health effects of exposure to substances present in the waste, or produced at waste disposal facilities are more difficult to measure, especially when their concentrations are very small and when there are other exposure pathways (e.g. food, soil). Nonetheless, lack of evidence can cause public concern. Despite important technological advancements, improved legislation and regulatory systems in the field of waste management, and more sophisticated health surveillance, the public acceptance of the location of new waste disposal and treatments facilities is still very low due to concern about adverse effects on the environment and human health. Health issues are associated with every step of the handling, treatment and disposal of waste, both directly (via recovery and recycling activities or other occupations in the waste management industry, by exposure to hazardous substances in the waste or to emissions from incinerators and landfill sites, vermin, odours and noise) or indirectly (e.g. via ingestion of contaminated water, soil and food).

The Parliamentary Office of Science and Technology (POST) (2000) summarises that there is a range of opinion among environmental campaigning groups regarding the place of incineration in waste management. For example the POST states that the National Society for Clean Air and Environmental Protection argues for incineration to play a part in a comprehensive strategy that includes waste reduction, reuse and recycling. Waste Watch agrees, but wishes to see these other options maximised before adopting incineration. Concerns remain, however, that there is no definitive guidance on how waste planning authorities can prove that options higher in the hierarchy have been exhausted before adopting incineration. Other groups (e.g. Greenpeace and Friends of the Earth) argue that there is little or no place for incineration in waste management. They allege that the pollutants released present an unacceptable risk to health and are concerned that commitment by local authorities to long-term contracts for supplying waste to incinerators will undermine efforts to reduce waste at source, and to recycle and reuse residual wastes. Lastly, some groups reject the classification of energy from waste as a form of renewable energy – this is highly contentious, but is beyond the scope of this briefing

The POST (2000) further highlights that there are general concerns amongst the general public about the safety of incineration and the possibility of health problems associated with emissions. Dioxins are of particular concern. In addition, incineration is seen by some, especially environmental groups, as an inefficient use of resources. In a House of Commons Waste Incineration Research Paper (House of Commons 2002) it is argued that the Government and many in the waste industry regard incineration as a safe and necessary part of the Waste Strategy, however it also notes that opposition to incinerators is often strong.

The Parliamentary Office of Science and Technology (POST) (2000) paper suggests that concerns arise over whether an incinerator is:

- justified in relation to reduction, reuse and recycling of wastes.
- sited and sized appropriately – e.g. if it deals only with wastes originating locally, and if it is located in a deprived area (raising issues of environmental justice).
- regulated to sufficient environmental standards, and that these standards are enforced adequately – i.e. whether the regulator can be trusted as independent and competent.

The paper refers to these concerns as being characterised as NIMBYism (Not in My Back Yard). However, research shows that people's concerns often stem from the way that MSW Incinerators are planned and consultation conducted. In particular, opposition arises when people feel excluded from decision making and have decisions imposed upon them. Acceptability is increased if local people are involved early in planning, including in the regional and waste local planning process. This process is now regarded as the 'norm' and an essential part of good practice. The Parliamentary Office of Science and Technology (POST) (2000).

The WHO (2007) scientific review itemises further the public concerns with regard to the perceived health risks from waste management to be at the "unacceptable" end of the scale. The WHO report states "there is little public acceptance that any health risks associated with waste management are a consequence of personal and societal production of waste, and a deep mistrust of waste in general". The report authors suggest that this may be due to some or all of the following factors:

- The health risks are not shared equally.
- The waste management industry does not have an unblemished record in the operation of its facilities.
- There is no apparent benefit to individuals – i.e. the public does not in general have a perception of responsibility for dealing with its own waste.
- There are contradictory views from government, the waste industry and NGOs on the risks posed to health from waste.
- Waste management poses risks which individuals cannot control. Waste is a heterogeneous and variable mixture of materials.
- This can give the impression that its behaviour is unpredictable, and can cause difficulties when the composition of waste varies from the norm.
- Waste is intrinsically considered to be unhealthy. We are taught not to touch it from an early age - and perhaps "programmed" to avoid contact with decomposing materials.
- Studies on health have been sensationalised and subject to contradictory comment.

Achillas, Vlachokostas et al. (2011) draw attention to public concern of the design of EfW plants. Their research highlights that the public's primary social concerns related to health effects of incinerators' emissions, potential accidents involving "toxic" waste, adverse impact on the quality of life and management of industrial waste. Achillas, Vlachokostas et al. (2011) further argue that despite improvements in EfW regulation and plant design terms such as "dioxins", "furans", "toxic waste" and "PCBs" gain – not always unreasonably – intense concern and create diachronically a significant debate, Achillas, Vlachokostas et al. (2011) show that the acceptance of waste incineration cannot be improved merely by pointing out that emissions meet or remain below the stringent emission standards and that modern process technology is used. The effectiveness of any MSW management scheme and its smooth operation heavily depends on its acceptance by the local community. This becomes even more imperative for communities with practically no prior experience in specific waste treatment alternatives, this will be of particular relevance in the introduction of MSW EfW incineration.

Experience from MSW EfW facilities in south Wales (Buroni 2010) suggests that once operational, key community concerns are generally focussed on the potential risk from a number of compounds emitted to air (and water). Defining the potential risk to health is ultimately dependent upon the release rate of these compounds emitted from the proposed Facility and the level, mode and extent of community exposure to them. Based upon a review of the ES air dispersion modelling, together with the application of exposure response mechanisms developed by the Department of Health's Committee on the Medical Effects of Air Pollutants (COMEAP), it is concluded that the proposed Facility does not constitute a significant risk to health from emissions to atmosphere during construction or operation. Such a conclusion is in keeping with the current evidence base on the potential health effects from modern Energy from Waste facilities and is consistent with the Position Statements issued by the Environment Agency, the UK Health Protection Agency, the Committee on the Carcinogenicity of Chemicals, the Chartered Institute of Water & Environmental Management and the Department for Environment Food & Rural Affairs. Once operational, socio-economic benefits provide a relatively small but important increase in permanent direct employment opportunities for those individuals, while the proposed Visitor Centre will aid in raising awareness as to more environmentally conscious waste management behaviour, and in demonstrating the design features in place to protect the environment and health. The proposed Facility has the capacity to generate heat energy for use by local business, helping to attract inward investment, encourage regeneration and increase local employment opportunities. Current negotiations with two major potential inward investors would potentially increase local socio-economic benefits

Mitigating Impacts on Health

Health Impact Assessment studies of similar EfW plants have identified several mitigation measures for example Buroni (2010) highlights that during construction of the proposed EfW in South Wales, the most significant risk associated with the construction stage was from increased traffic movements and associated risk of collision. To mitigate this a 'Framework Construction Travel Plan' was developed to minimise such risk and associated community disruption.

The Scientific Report by the WHO (2007) says that it is also important that the adverse effects on health due to nuisance (smell, noise, litter, effect on property values, stress for lack of regulatory response etc) are considered. These endpoints often escape formal epidemiological analysis but are relevant for the health of communities. Consideration of all relevant health elements may be achieved through integrated and participatory approaches, such as health impact assessment (HIA), which has proven effective in some cases in waste management policies. HIA can be done at a policy, program or project level, and help judge the potential effects of a proposal as well as the distribution of those effects. Understanding and managing the potential or likely health impacts of waste management is likely to be best addressed through either HIA or strategic environmental assessment (SEA).

Ensure waste management encourages the reduction, recycling and reuse of waste at household and development sites. Minimise exposure to air pollution through the separation of noisy and polluting industrial areas from residential and service areas, and promote 'good neighbour' policies (Royal Town Planning Institute 2009).

Precautionary Principle

The WHO report (2007) states “In view of the various limitations hampering our ability to characterize all risks, such assessments should be inspired by a precautionary approach, with respect both to the creation of new facilities and the mitigation of exposure to emissions and leachates of existing sites”.

There are several difficulties in trying to assess the association between hazardous waste and health outcomes. Most serious is the question of exposure: how do we measure this, and to what extent can we assume that the exposure has not varied over time? What is known about the residential histories of those affected, or other possible sources of exposure, as in the workplace? Definitions of study areas and study populations are also problematic; certainly the first of these is inherently arbitrary. Studies of area units may be suggestive, but detailed case-control studies are needed for a more convincing result, not least because such studies can adjust for the influence of confounding variables (Gatrell 2002).

The WHO Scientific Report (2007) argues that the health impact of waste management procedures cannot yet be properly evaluated, because of the limitations of the current state of knowledge. However, absence of evidence is not evidence of absence. Hence, available information of localized environmental contamination and, to some extent, of increased occurrence of adverse health effects in the vicinity of landfills and incinerators should inspire a precautionary approach with respect both to the instalment of new facilities and the mitigation of exposure to emissions and leachates of existing sites. Priority-setting for environmental remediation should be based on hazard detection, estimation of the size of the exposed population (including vulnerable groups) and appreciation of inequity in the distribution of exposure among population subgroups, taking into account the possibility of higher exposure of socioeconomically deprived groups. The latter aspect should be present to decision-makers even if the absolute number of exposed subjects might appear to be small, thus resulting in a moderate number of attributable cases. The questions of distribution of impacts and benefits, as well as the perceived risks, should be taken into consideration when comparing the health implications of waste against known risk factors with established higher effects (for example, traffic-related air pollution or passive smoking). This process should be made accessible to administrators and concerned communities in a truthful and understandable way, taking into account local concerns, promoting participatory activities and supporting autonomous decision processes.

The BMA (British Medical Association 1998) further argues that in the case of many low level pollutants, it is very difficult or even impossible to establish whether a significant risk exists when a community is exposed to them. Knowledge may be sufficient for taking action, but insufficient to satisfy scientific enquiry. Levels of uncertainty are compounded in conditions of cumulative exposure of many chemicals from many sources. The notion of precautionary principle can be interpreted in a variety of different ways. The UK government have interpreted it to mean that ‘where there are significant risks of damage to the environment, the government will be prepared to take precautionary action to limit the use of potentially dangerous materials or the spread of potentially dangerous pollutants even when scientific knowledge is not conclusive, if the likely balance of costs and benefits justifies it. Use of the precautionary principle helps ensure that decisions made today are not a source of regret tomorrow.

Literature Review concluding comments:

This brief review has drawn upon selected published and grey literature to inform the desk-top health impact assessment of the proposed EfW plant located in Plymouth. The review briefly summarises managing waste and examines previous studies of waste incineration and health, noting that the majority of previous studies focus on older incineration plants pre tightened European directives. Research on the level of pollutant emissions is reviewed, noting that observational epidemiological studies of impact upon human health present limitations for conclusive evidence. The potential health and social impacts of MSW incineration are discussed and note that the wider social impact issues can be overlooked by disease focused studies and warrant the same level of attention. Public concern is reported in the literature; there is a healthy concern in the general population with regard to the health impacts of waste and incineration, there is limited room for public acceptance of living in the vicinity of a EfW incinerator. The review offers some insight into suggested mitigation measures, the presenting feature of successful management is full and active participation of the community at all stages. The overriding consideration arising from this review is to accept the notion of the precautionary principle approach whilst acknowledging the improved regulation and design of EfW incineration plants.

APPENDIX 8

Draft Permit with introductory note

The Environmental Permitting (England & Wales) Regulations
2010

North Yard HMNB Devonport

Proposed EFW plant

Plan Ref 11/00750

Draft Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

MVV Environment Devonport Limited

Devonport Energy from Waste CHP
North Yard,
Devonport Dockyard,
Plymouth,
Devon,
PL5

Permit number
EPR/WP3833FT

Devonport Energy from Waste CHP

Permit Number EPR/WP3833FT

Introductory note

This introductory note does not form a part of the permit

This permit controls the operation of an installation, whose purpose is the disposal of waste with energy recovery in an incineration plant. The relevant listed activity is Section 5.1 Part A(1)(c) – incineration of non-hazardous waste in an incineration plant with a capacity of 1 tonne or more per hour. The permit implements the requirement of the EU Directives on Integrated Pollution Prevention and Control and Waste Incineration.

The main features of the permit are as follows:

The installation is designed to dispose of residual municipal waste, and commercial and industrial waste of a similar nature to residual municipal waste, by incineration. These wastes are currently landfilled. Energy will be recovered from the incineration process in the form of electricity, which will be fed into the national grid, and steam, which will be used within the adjacent naval dockyard.

The installation is designed with a maximum operating capacity of 265,000 tonnes per year. The incinerator is of a mass burn design. Waste will be delivered by road and tipped within the main building in the Tipping Hall directly into the Waste Bunker. The waste is stored and mixed in the waste bunker prior to being burnt in a moving grate incinerator plant.

The installation includes baling equipment and a bale store. When the incinerator is not in operation, the incoming waste is compacted and sealed in a strong plastic film. It is then stored onsite until the incinerator plant is back in operation when it is re-introduced to the process.

Heat from the combustion process is used to generate steam at high pressure. The high pressure steam is fed to a steam turbine to generate electricity. Lower pressure steam is supplied to the Devonport dockyard. This replaces steam currently generated at the dockyard in a combustion plant burning natural gas. Heat not recovered in the form of electricity or steam is dissipated through air cooled condensers.

The installation uses a combination of techniques for treating emissions from the combustion process in order to prevent and minimise pollution. These are:

- Good combustion control
- Selective non catalytic reduction for NO_x control
- Dry scrubbing with sodium bicarbonate and activated carbon for the control of acid gases, metals and dioxins and furans
- Bag filters for particulate control
- A 95m chimney

The incineration process results in solid residues of incinerator bottom ash and air pollution control residues. Treatment for recovery or disposal of solid residues will take place away from the installation with only minimal storage occurring onsite.

The installation processes seek to reuse and recycle all its own water, which comprises that from periodic boiler blowdown and boiler feed water treatment waste water. However from time to time, disposal of waste water to sewer will be required.

The site is located in the northern section of Her Majesty's Naval Base, Devonport Dockyard in Plymouth.

The installation will receive primarily mixed residual municipal wastes, but will also be able to receive a range of commercial and industrial wastes which can be safely burnt in the incineration plant. Pre-treatment of waste will not be carried out, other than the shredding of some bulky items. However, the installation will not receive wastes intended to be recovered or recycled unless they are contaminated to the extent that they are unsuitable for recovery or recycling or would otherwise be destined for landfill.

The permit sets conditions controlling the management, operation and the control of emissions from the installation, including the monitoring and reporting of emissions to all environmental media.

The status log of the permit sets out the permitting history, including any changes to the permit reference number

Status Log of the permit		
Detail	Date	Comments
Application EPR/WP3833/A001	Duly made 07/06/2011	
Additional Information Received	29/07/2011	
Issue of Notice seeking further information.	17/08/2011	
Additional Information Received	29/09/2011	
Issue of Notice seeking further information.	28/10/2011	
Additional Information Received	14/11/2011	
Permit determined	DD/MM/YY	

End of Introductory Note

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number
EPR/WP3833FT

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

MVV Environment Devonport Limited ("the operator"),

whose registered office is

**North Quay House,
Sutton Harbour,
Plymouth,
Devon,
PL4 0RA**

company registration number **07412959**

to operate an installation at

**Devonport Energy from Waste CHP
North Yard,
Devonport Dockyard,
Plymouth,
Devon,
PL5**

to the extent authorised by and subject to the conditions of this permit.

Name

Date

	[DD/MM/YYYY]

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
- (b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Energy efficiency

1.2.1 The operator shall:

- (a) take appropriate measures to ensure that energy is recovered with a high level of energy efficiency and energy is used efficiently in the activities;
- (b) review and record at least every four years whether there are suitable opportunities to improve the energy recovery and efficiency of the activities; and
- (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

1.3.1 The operator shall:

- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
- (b) maintain records of raw materials and water used in the activities;
- (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
- (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

1.4.1 The operator shall take appropriate measures to ensure that:

- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
- (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

- (c) where waste disposal is necessary, this is undertaken in a manner which minimised its impact on the environment.
- 1.4.2 review and record at least every four years whether changes to those measures should be made; and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").
- 2.1.2 Waste authorised by this permit in condition 2.3.3 shall be clearly distinguished from any other waste on the site.

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1
 - (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
 - (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in schedule 1, table S1.2 or otherwise required under this permit, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.3 Waste shall only be accepted if:
 - (a) it is of a type and quantity listed in schedule 2 table S2.2; and
 - (b) it conforms to the description in the documentation supplied by the producer or holder;
 - (c) if having been separately collected for recycling, it is contaminated or otherwise destined for landfill; or
 - (d) if a residue from a cleaning process, it has where practicable been dewatered to reduce the moisture content;
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
 - (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

- 2.3.6 Waste shall not be charged, or shall cease to be charged, if:
- (a) the combustion chamber temperature is below, or falls below, 850°C; or
 - (b) any continuous emission limit value in schedule 3 table S3.1(a) is exceeded; or
 - (c) any continuous emission limit value in schedule 3 table S3.1 is exceeded, other than under WID abnormal operating conditions ; or
 - (d) monitoring results required to demonstrate compliance with any continuous emission limit value in schedule 3 table S3.1 are unavailable other than under WID abnormal operating conditions.
- 2.3.7 The operator shall have at least one auxiliary burner in each line at start up or shut down or whenever the operating temperature falls below that specified in condition 2.3.6, as long as incompletely burned waste is present in the combustion chamber. Unless the temperature specified in condition 2.3.6 is maintained in the combustion chamber, such burner(s) may be fed only with fuels which result in emissions no higher than those arising from the use of gas oil, liquefied gas or natural gas.
- 2.3.8 The operator shall record the beginning and end of each period of "WID abnormal operation".
- 2.3.9 During a period of "WID abnormal operation", the operator shall restore normal operation of the failed equipment or replace the failed equipment as rapidly as possible.
- 2.3.10 Where, during "WID abnormal operation", any of the following situations arise, the operator shall, as soon as is practicable, cease the burning of waste until normal operation can be restored:
- (a) continuous measurement shows that an emission exceeds any emission limit value in schedule 3 table S3.1 due to disturbances or failures of the abatement systems, or continuous emission monitor(s) are out of service, as the case may be, for a total of 4 hours uninterrupted duration;
 - (b) the cumulative duration of "WID abnormal operation" periods over 1 calendar year exceeds 60 hours on an incineration line;
 - (c) continuous measurement shows that an emission exceeds any emission limit value in schedule 3 table S3.1 (a) due to disturbances or failures of the abatement systems;
- 2.3.11 The operator shall interpret the end of the period of "WID abnormal operation" as the earliest of the following:
- (a) when the failed equipment is repaired and brought back into normal operation;
 - (b) when the operator initiates a shut down of the waste combustion activity, as described in the application or as agreed in writing with the Environment Agency;
 - (c) when a period of four hours has elapsed from the start of the "WID abnormal operation";
 - (d) when, in any calendar year, an aggregated period of 60 hours "WID abnormal operation" has been reached for a given incineration line.
- 2.3.12 Bottom ash and APC residues shall not be mixed.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

- 2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4 have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3 except in "WID abnormal operation", when there shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1(a), S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Wastes produced at the site shall, as a minimum, be sampled and analysed in accordance with schedule 3 table S3.4 Additional samples shall be taken and tested and appropriate action taken, whenever:
- (a) disposal or recovery routes change; or
 - (b) it is suspected that the nature or composition of the waste has changed such that the route currently selected may no longer be appropriate.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Monitoring

- 3.3.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1, S3.1(a) and S3.2;
 - (e) process monitoring specified in table S3.3;
 - (g) residue quality in table S3.4
- 3.3.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

- 3.3.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing by the Environment Agency. Newly installed CEMs, or CEMs replacing existing CEMs, shall have MCERTS certification and have an MCERTS certified range which is not greater than 1.5 times the daily emission limit value (ELV) specified in schedule 3 table S3.1. The CEM shall also be able to measure instantaneous values over the ranges which are to be expected during all operating conditions. If it is necessary to use more than one range setting of the CEM to achieve this requirement, the CEM shall be verified for monitoring supplementary, higher ranges.
- 3.3.4 The provisions for monitoring shall meet the requirements of BS EN 15259. Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.1(a), S3.2 [S3.3 etc] unless otherwise agreed in writing by the Environment Agency.
- 3.3.5 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in schedule 3 table S3.1; the Continuous Emission Monitors shall be used such that;
- (a) the values of the 95% confidence intervals of a single measured result at the daily emission limit value shall not exceed the following percentages:

• Carbon monoxide	10%
• Sulphur dioxide	20%
• Oxides of nitrogen (NO & NO ₂ expressed as NO ₂)	20%
• Particulate matter	30%
• Total organic carbon (TOC)	30%
• Hydrogen chloride	40%
 - (b) valid half-hourly average values shall be determined within the effective operating time (excluding the start-up and shut-down periods) from the measured values after having subtracted the value of the confidence intervals in condition 3.3.5 (a);
 - (c) where it is necessary to calibrate or maintain the monitor and this means that data are not available for a complete half-hour period, the half-hourly average shall in any case be considered valid if measurements are available for a minimum of 20 minutes during the half-hour period. The number of half-hourly averages so validated shall not exceed 5 per day;
 - (d) daily average values shall be determined as the average of all the valid half-hourly average values within a calendar day. The daily average value shall be considered valid if no more than five half-hourly average values in any day have been determined not to be valid;
 - (e) no more than ten daily average values per year shall be determined not to be valid.

3.4 Odour

- 3.4.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.5 Noise and vibration

- 3.5.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.5.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production /treatment data set out in schedule 4 table S4.2; and
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- (d) the functioning and monitoring of the incineration plant in a format agreed with the Environment Agency. The report shall, as a minimum requirement (as required by Article 12(2) of the Waste Incineration Directive) give an account of the running of the process and the emissions into air and water compared with the emission standards in the WID.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4 ; and

- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

- 4.3.1 The Environment Agency shall be notified without delay following the detection of:
 - (a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
 - (b) the breach of a limit specified in the permit; or
 - (c) any significant adverse environmental effects.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

 - (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

 - (a) any change in the operator's name or address; and
 - (b) any steps taken with a view to the dissolution of the operator.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
 - (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

DRAFT

Schedule 1 - Operations

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
S5.1 A1 (c)	The incineration of non-hazardous waste in an incineration plant with a capacity of 1 tonne per hour or more.	From receipt of waste to emission of exhaust gas and disposal of waste arising. Waste types and quantities as specified in Table S2.2 of this permit.
Directly Associated Activities		
Operation of Baling Equipment	Baling of waste for on site storage.	Limited to periods when the incineration plant is not operational. Such waste to be retained indoors on site.
Electricity Generation	Generation of electrical power using a steam turbine from energy recovered from the flue gases.	
Steam supply system	Supply of steam to neighbouring commercial clients.	Steam supply, condensate collection, water treatment (equipment and pipework within the installation boundary).
Back up diesel generator	For providing emergency electrical power to the plant in the event of supply interruption and for power to the emergency fire fighting systems.	

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Operating Techniques Document (03 Jun 2011) - Sections 3.3, 3.4, 4.4, 4.5, 4.6, 5.4, 5.5, 5.7, 5.12, 6.2, 6.3, & 6.4 Emissions Management (03 Jun 2011) - Sections 4.4, 5.2 Energy Management Report (06 Jun 2011) - Section 5.2 Odour Management Plan (03 Jun 2011)	7 th June 2011

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	The Operator shall submit a written report to the Environment Agency on the implementation of its Environmental Management System and the progress made in the accreditation of the system by an external body or if appropriate submit a schedule by which the EMS will be subject to accreditation.	Within 18 months of the date on which waste is first burnt.

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC2	The Operator shall carry out the first review of energy recovery and efficiency required by condition 1.2.1 (b) after 2 years. That review shall include but not be limited to consideration of extending steam supply to the South Yard, and the establishment of a district heating system for neighbouring residential areas.	Within 2 years of the date on which waste is first burnt.
IC3	The Operator shall submit a written report to the Environment Agency describing the performance and optimisation of the flue gas abatement systems. The report shall provide details of : (i) combustion settings and the operation of the Selective Non Catalytic Reduction (SNCR) system to minimise oxides of nitrogen (NO _x) emissions within the emission limit values described in this permit with the minimisation of ammonia and nitrous oxide emissions. This shall include an assessment of the level of NO _x and N ₂ O emissions that can be achieved under optimum operating conditions. (ii) the optimisation (including dosing rates of sodium bicarbonate and activated carbon) for the control of acid gases and dioxins and furans	Within 4 months of the date on which waste is first burnt.
IC4	The Operator shall carry out checks to verify the residence time, minimum temperature and oxygen content of the exhaust gases in the furnace whilst operating under the anticipated most unfavourable operating conditions. The results shall be submitted in writing to the Environment Agency.	Within 4 months of the date on which waste is first burnt.
IC5	The Operator shall submit a written report to the Environment Agency on the commissioning of the installation. The report shall summarise the environmental performance of the plant as installed against the design parameters set out in the Application. The report shall also include a review of the performance of the facility against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions.	Within 4 months of the date on which waste is first burnt.
IC6	The Operator shall submit a written summary report to the Environment Agency to confirm by the results of calibration and verification testing that the performance of Continuous Emission Monitors for parameters as specified in Table S3.1 and Table S3.1(a) complies with the requirements of BS EN 14181, specifically the requirements of QAL1, QAL2 and QAL3. (i) Initial calibration report to be submitted to the Environment Agency (ii) Full summary evidence compliance report to be submitted to the Environment Agency	(i) Within 4 months of the date on which waste is first burnt. (ii) Within 18 months of the date on which waste is first burnt.
IC7	The Operator shall carry out the first review of techniques for the avoidance, recovery or disposal of wastes produced at the installation, required by condition 1.4.2, after 2 years. That review shall include but not be limited to consideration of recovery and recycling options for the treatment of air pollution control residues.	Within 2 years of the date on which waste is first burnt.

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC8	The Operator shall carry out a review of the noise impact of the installation at the most sensitive receptors, once the plant is fully operational in its first year of operation. The scope of the review shall be agreed with the Environment Agency and shall compare the actual noise emissions from the installation and their impact with those predicted in the Application. The review shall include appropriate measurements to verify any modelling work undertaken and establish whether any of the noise emissions have a tonal quality (both during daytime and night-time operation) likely to give rise to nuisance or complaint. A report on the review shall be provided to the Environment Agency.	Within 12 months of the date on which waste is first burnt.

Table S1.4 Pre-operational measures

Reference	Pre-operational measures
PO1	Prior to the commencement of commissioning, the Operator shall send an updated summary of the site Environment Management System (EMS) to the Environment Agency and make available for inspection all documents and procedures which form part of the EMS, together with a list of amendments made from the Application.
PO2	Prior to the commencement of commissioning, the Operator shall include within their emergency plan, a procedure for the safe shut down of the incinerator plant as a result of an external incident at the naval dockyard. This plan shall form part of the EMS documentation made available for inspection under pre-operational measure PO1.
PO3	Prior to the commencement of commissioning, the Operator shall submit a written report to the Environment Agency detailing the waste acceptance procedure to be used at the site. The waste acceptance procedure shall describe the process and systems to demonstrate how compliance with condition 2.3.3 will be achieved. The waste acceptance procedure will also include a procedure for describing the quantity, content and origin of any waste received which is assigned the waste code 20 01 99 or 20 03 99. The waste acceptance procedure shall form part of the EMS documentation made available for inspection under pre-operational measure PO1.
PO4	Prior to the commencement of commissioning, the Operator shall submit to the Environment Agency for approval a protocol for the sampling and testing of incinerator bottom ash for the purposes of assessing its hazard status. Sampling and testing shall be carried out in accordance with the protocol as approved.
PO5	After completion of furnace design and at least three calendar months before any furnace operation; the operator shall submit a written report to the Environment Agency of the details of the computational fluid dynamic (CFD) modelling. The report shall demonstrate whether the design combustion conditions comply with the residence time and temperature requirements as defined by the Waste Incineration Directive.
PO6	Prior to the commencement of commissioning; the Operator shall provide further written details of their commissioning plan, including timelines for completion, for approval by the Environment Agency. The commissioning plan shall include the expected emissions to the environment during the different stages of commissioning, the expected durations of commissioning activities and the actions to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. Commissioning shall be carried out in accordance with the commissioning plan as approved.

Table S1.4 Pre-operational measures	
Reference	Pre-operational measures
PO7	On completion of the final design of the installation, the Operator shall revise the Noise Assessment submitted in Appendix E – Noise Impact Assessment of the Application and re-submit the assessment to the Environment Agency. The revised assessment shall include the final design details for building, plant and equipment with respect to noise attenuation and shall demonstrate a level of performance at least as good as that shown in the Application.

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels

Raw materials and fuel description	Specification
Gas Oil	< 0.1% sulphur content

Table S2.2 Permitted waste types and quantities for incineration plant

Maximum quantity	Maximum total throughput = 265,000 tonnes per year. The aggregated throughput of waste codes 15 01 04, 15 01 07, 19 04 01, 19 12 02, 19 12 03 and 19 12 09 shall not exceed 5% by weight of the total throughput. The aggregated throughput of waste codes 04 01 08, 09 01 07 and 19 10 04 shall not exceed 1% by weight of the total throughput.
Waste code	Description
02	Wastes from Agriculture, Horticulture, Aquaculture, Forestry, Hunting & Fishing, Food Preparation & Processing
02 01	Wastes from agriculture, horticulture, aquaculture, forestry, hunting & fishing
02 01 02	Animal-tissue waste
02 01 03	Plant-tissue waste
02 01 04	Waste plastics (except packaging)
02 01 06	Animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated offsite
02 01 07	Wastes from forestry
02 01 09	Agrochemical waste other than those mentioned in 02 01 08
02 02	Wastes from the preparation and processing of meat, fish & other foods of animal origin
02 02 02	Animal-tissue waste
02 02 03	Materials unsuitable for consumption or processing
02 03	Wastes from fruit, vegetables, cereals edible oils, cocoa, coffee, tea and tobacco preparation & processing; conserve production; yeast & yeast extract production, molasses preparation & fermentation
02 03 04	Materials unsuitable for consumption or processing
02 05	Wastes from the dairy products industry
02 05 01	Materials unsuitable for consumption or processing
02 06	Wastes from the baking and confectionery industry
02 06 01	Materials unsuitable for consumption or processing
02 06 02	Wastes from preserving agents
02 07	Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea & cocoa)
02 07 01	Wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	Wastes from spirits distillation
02 07 04	Materials unsuitable for consumption or processing
03	Wastes from Wood Processing and the Production of Panels and Furniture, Pulp, Paper and Cardboard
03 01	Wastes from Wood Processing and the Production of Panels and Furniture
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04

Table S2.2 Permitted waste types and quantities for incineration plant

Maximum quantity	Maximum total throughput = 265,000 tonnes per year. The aggregated throughput of waste codes 15 01 04, 15 01 07, 19 04 01, 19 12 02, 19 12 03 and 19 12 09 shall not exceed 5% by weight of the total throughput. The aggregated throughput of waste codes 04 01 08, 09 01 07 and 19 10 04 shall not exceed 1% by weight of the total throughput.	
Waste code	Description	
03 03	Wastes from Pulp, Paper and Cardboard production and processing	
03 03 01	waste bark and wood	
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard	
03 03 08	wastes from sorting of paper and cardboard destined for recycling	
04	Wastes from the Leather, Fur and Textile Industries	
04 01	Wastes from the Leather and Fur Industry	
04 01 08	Waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium	
04 01 09	Wastes from dressing and finishing	
04 02	Wastes from the Textile Industry	
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)	
04 02 10	organic matter from natural products (for example grease, wax)	
04 02 21	Wastes from unprocessed textile fibres	
04 02 22	Wastes from processed textile fibres	
09	Wastes from the Photographic Industry	
09 01	Wastes from the Photographic Industry	
09 01 07	photographic film and paper containing silver or silver compounds	
09 01 08	photographic film and paper free of silver or silver compounds	
15	Waste Packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified.	
15 01	Packaging (including separately collected municipal packaging waste)	
15 01 01	Paper and cardboard packaging	
15 01 02	Plastic packaging	
15 01 03	Wooden packaging	
15 01 04	Metallic packaging	
15 01 05	Composite packaging	
15 01 06	Mixed packaging	
15 01 07	Glass packaging	
15 01 09	Textile packaging	
15 02	Absorbents, wiping cloths, filter materials and protective clothing	
15 02 03	Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	
17	Construction and Demolition Wastes (Including excavated soil from contaminated sites)	
17 02	Wood Glass and Plastic	
17 02 01	Wood	
17 02 03	Plastic	
17 09	Other Construction and Demolition Wastes	
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	
19	Wastes from Waste Management Facilities, off-site Waste Water Treatment Plants & Preparation of Water intended for Human Consumption / Industrial Use	

Table S2.2 Permitted waste types and quantities for incineration plant

Maximum quantity	Maximum total throughput = 265,000 tonnes per year. The aggregated throughput of waste codes 15 01 04, 15 01 07, 19 04 01, 19 12 02, 19 12 03 and 19 12 09 shall not exceed 5% by weight of the total throughput. The aggregated throughput of waste codes 04 01 08, 09 01 07 and 19 10 04 shall not exceed 1% by weight of the total throughput.	
Waste code	Description	
19 02	Wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)	
19 02 03	Premixed wastes composed only of non-hazardous wastes	
19 02 10	Combustible wastes other than those mentioned in 19 02 08 and 19 02 09	
19 04	Vitrified waste and wastes from vitrification	
19 04 01	Vitrified waste	
19 05	Wastes from aerobic treatment of solid wastes	
19 05 01	Non-composted fraction of municipal and similar wastes	
19 05 02	Non-composted fraction of animal and vegetable waste	
19 05 03	Off-specification compost	
19 06	wastes from anaerobic treatment of waste	
19 06 04	digestate from anaerobic treatment of municipal waste	
19 06 06	digestate from anaerobic treatment of animal and vegetable waste	
19 08	wastes from waste water treatment plants not otherwise specified	
19 08 01	screenings	
19 10	wastes from shredding of metal-containing wastes	
19 10 04	fluff-light fraction and dust other than those mentioned in 19 10 03	
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	
19 12 01	Paper and cardboard	
19 12 02	Ferrous metal	
19 12 03	Non-ferrous metal	
19 12 04	Plastic and rubber	
19 12 07	Wood other than that mentioned in 19 12 06	
19 12 08	Textiles	
19 12 09	Minerals (for example sand, stones)	
19 12 10	Combustible waste (refuse derived fuel)	
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	
20	Municipal Wastes (Household and Similar Commercial, Industrial and Institutional Wastes) including separately collected fractions	
20 01	Separately Collected Fractions (except 15 01)	
20 01 01	Paper and cardboard	
20 01 08	Biodegradable food waste	
20 01 10	Clothes	
20 01 11	Textiles	
20 01 25	edible oil and fat	
20 01 37*	Wood containing dangerous substances (content of dangerous substances not to exceed in threshold for classification as hazardous waste)	
20 01 38	Wood other than that mentioned in 20 01 37	
20 01 39	Plastics	
20 01 99	Other fractions not otherwise specified	
20 02	Garden and Park Wastes (including cemetery wastes)	
20 02 01	Biodegradable waste	

Table S2.2 Permitted waste types and quantities for incineration plant

Maximum quantity Maximum total throughput = 265,000 tonnes per year.
The aggregated throughput of waste codes 15 01 04, 15 01 07, 19 04 01, 19 12 02, 19 12 03 and 19 12 09 shall not exceed 5% by weight of the total throughput.
The aggregated throughput of waste codes 04 01 08, 09 01 07 and 19 10 04 shall not exceed 1% by weight of the total throughput.

Waste code	Description
20 02 03	Other non-biodegradable waste
20 03	Other Municipal Wastes
20 03 01	Mixed municipal waste
20 03 02	Waste from markets
20 03 03	Street sweeping residues
20 03 04	Street cleaning residues
20 03 06	Waste from sewage cleaning
20 03 07	Bulky waste
20 03 99	Municipal wastes not otherwise specified

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location ^[1]	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard(s) or method(s)
A1	Particulate matter	95m Stack	30 mg/m ³	½-hr average	Continuous measurement	BS EN 15267- 3 BS EN 14181
A1	Particulate matter	95m Stack	10 mg/m ³	daily average	Continuous measurement	BS EN 15267- 3 BS EN 14181
A1	Total Organic Carbon (TOC)	95m Stack	20 mg/m ³	½-hr average	Continuous measurement	BS EN 15267- 3 BS EN 14181
A1	Total Organic Carbon (TOC)	95m Stack	10 mg/m ³	daily average	Continuous measurement	BS EN 15267- 3 BS EN 14181
A1	Hydrogen chloride	95m Stack	60 mg/m ³	½-hr average	Continuous measurement	BS EN 15267- 3 BS EN 14181
A1	Hydrogen chloride	95m Stack	10 mg/m ³	daily average	Continuous measurement	BS EN 15267- 3 BS EN 14181
A1	Hydrogen fluoride	95m Stack	2 mg/m ³	periodic over minimum 1-hour period	Quarterly in first year. Then Bi-annual	BS ISO 15713
A1	Carbon monoxide	95m Stack	100 mg/m ³	½-hr average	Continuous measurement	BS EN 15267- 3 BS EN 14181
A1	Carbon monoxide	95m Stack	50 mg/m ³	daily average	Continuous measurement	BS EN 15267- 3 BS EN 14181
A1	Sulphur dioxide	95m Stack	200 mg/m ³	½-hr average	Continuous measurement	BS EN 15267- 3 BS EN 14181
A1	Sulphur dioxide	95m Stack	50 mg/m ³	daily average	Continuous measurement	BS EN 15267- 3 BS EN 14181

Table S3.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location ^[1]	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard(s) or method(s)
A1	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	95m Stack	400 mg/m ³	½-hr average	Continuous measurement	BS EN 15267- 3 BS EN 14181
A1	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	95m Stack	200 mg/m ³	daily average	Continuous measurement	BS EN 15267- 3 BS EN 14181
A1	Cadmium & thallium and their compounds (total)	95m Stack	0.05 mg/m ³	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 14385
A1	Mercury and its compounds	95m Stack	0.05 mg/m ³	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 13211
A1	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	95m Stack	0.5 mg/m ³	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 14385
A1	Ammonia (NH ₃)	95m Stack		periodic over minimum 1-hour period	For periodic measurement, quarterly in the first year of operation, then bi-annual	Procedural requirements of BS EN 14791
A1	Nitrous oxide (N ₂ O)	95m Stack		periodic over minimum 1-hour period	For periodic measurement, quarterly in the first year of operation, then bi-annual	BS EN ISO 21258
A1	Dioxins / furans (I-TEQ)	95m Stack	0.1 ng/m ³	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948 Parts 1, 2 and 3
A1	Dioxins / furans (WHO-TEQ Humans / Mammals)	95m Stack		periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948 Parts 1, 2 and 3
A1	Dioxins / furans (WHO-TEQ Fish)	95m Stack		periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948 Parts 1, 2 and 3

Table S3.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location ^[1]	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard(s) or method(s)
A1	Dioxins / furans (WHO-TEQ Birds)	95m Stack		periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948 Parts 1, 2 and 3
A1	Dioxin-like PCBs (WHO-TEQ Humans / Mammals)	95m Stack		periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948-4
A1	Dioxin-like PCBs (WHO-TEQ Fish)	95m Stack		periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948-4
A1	Dioxin-like PCBs (WHO-TEQ Birds)	95m Stack		periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948-4
A1	Specific individual poly-cyclic aromatic hydrocarbons (PAHs), as specified in Schedule 6.	95m Stack		periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS ISO 11338 Parts 1 and 2.

Note [1]: Location as described in the Application.

Table S3.1(a) Point source emissions to air during abnormal operation of incineration plant – emission limits and monitoring requirements

Emission point ref. & location ^[1]	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1	Particulate matter	95m Stack	150 mg/m ³	½-hr average	Continuous measurement	BS EN 15267-3 during abatement plant failure
A1	Total Organic Carbon (TOC)	95m Stack	20 mg/m ³	½-hr average	Continuous measurement	BS EN 15267-3 during abatement plant failure
A1	Carbon monoxide	95m Stack	100 mg/m ³	½-hr average	Continuous measurement	BS EN 15267-3 during abatement plant failure

Note [1]: Location as described in the Application.

Table S3.2 Point source emissions to sewer						
Emission point ref. & location [1]	Parameter	Source	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
S1	Flow	Boiler sampling and blowdown	no limit	daily average	Continuous	
	pH		6-9	Instantaneous	Continuous	BS6068-2.50
	Temperature		no limit	Instantaneous	Continuous	

Note [1]: Location as described in the Application.

Table S3.3 Process monitoring requirements				
Location [1] or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
As identified in the Application	Wind Speed and Direction	Continuous	Anemometer	
Location close to the Combustion Chamber inner wall or as identified and justified in Application.	Temperature (° C)	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1	Exhaust gas temperature	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1	Exhaust gas pressure	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1	Exhaust gas oxygen content	Continuous	BS EN 15267-3 BS EN 14181	
A1	Exhaust gas water vapour content	Continuous	BS EN 15267-3 BS EN 14181	Unless gas is dried before analysis of emissions.

Note [1]: Location as described in the Application.

Table S3.4 Residue quality

Emission point reference or source or description of point of measurement	Parameter	Limit	Monitoring frequency	Monitoring standard or method *	Other specifications
Bottom Ash	TOC	<3%	Monthly in the first year of operation. Then Quarterly	Environment Agency ash sampling protocol.	
Bottom Ash	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.		Monthly in the first year of operation. Then Quarterly	Sampling and analysis as per Environment Agency ash sampling protocol.	
Bottom Ash	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions		Before use of a new disposal or recycling route	Sampling and analysis as per Environment Agency ash sampling protocol.	
APC Residues	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.		Monthly in the first year of operation. Then Quarterly	Sampling and analysis as per Environment Agency ash sampling protocol.	
APC Residues	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions		Before use of a new disposal or recycling route	Sampling and analysis as per Environment Agency ash sampling protocol.	
Waste water from boiler blowdown and water treatment not sent to sewer.	Quantity and pH	pH 6 - 9	Each disposal.		

* Or other equivalent standard as agreed in writing with the Environment Agency.

Schedule 4 - Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1	A1	Quarterly	1 Jan, 1 Apr, 1 Jul and 1 Oct
Emissions to sewer Parameters as required by condition 3.5.1	S1	Quarterly	1 Jan, 1 Apr, 1 Jul and 1 Oct
TOC Parameters as required by condition 3.5.1	Bottom Ash	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct
Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs Parameters as required by condition 3.5.1	Bottom Ash	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct
Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions Parameters as required by condition 3.5.1	Bottom Ash	Before use of a new disposal or recycling route	
Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs Parameters as required by condition 3.5.1	APC Residues	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct
Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions Parameters as required by condition 3.5.1	APC Residues	Before use of a new disposal or recycling route	
Functioning and monitoring of the incineration plant as required by condition 4.2.2		Annually	1 Jan

Table S4.2: Annual production/treatment

Parameter	Units
Total Municipal Waste Incinerated	tonnes
Total of all other Wastes Incinerated	tonnes
Electrical energy produced	KWhrs
Electrical energy exported	KWhrs
Electrical energy used on installation	KWhrs
Heat energy exported from the installation in the form of steam	KWhrs

Table S4.3 Performance parameters

Parameter	Frequency of assessment	Units
Electrical energy exported, imported and used at the installation	Quarterly	KWhrs / tonne of waste incinerated
Heat energy exported from the installation in the form of steam	Quarterly	KWhrs / tonne of waste incinerated
Fuel oil consumption	Quarterly	Kgs / tonne of waste incinerated
Mass of Bottom Ash produced	Quarterly	Kgs / tonne of waste incinerated
Mass of APC residues produced	Quarterly	Kgs / tonne of waste incinerated
Urea consumption	Quarterly	Kgs / tonne of waste incinerated
Activated Carbon consumption	Quarterly	Kgs / tonne of waste incinerated
Sodium Bicarbonate consumption	Quarterly	Kgs / tonne of waste incinerated
Water consumption	Quarterly	Kgs / tonne of waste incinerated
Periods of WID abnormal operation	Quarterly	No of occasions and cumulative hours for current calendar year.

Table S4.4 Reporting forms

Media/parameter	Reporting format	Date of form
Air	Form air 1-8 or other form as agreed in writing by the Environment Agency	DD/MM/YY
Sewer	Form sewer 1 or other form as agreed in writing by the Environment Agency	DD/MM/YY
Residues	Form residues1 or other form as agreed in writing by the Environment Agency	DD/MM/YY
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	DD/MM/YY
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	DD/MM/YY

Schedule 5 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	EPR/WP3833FT
Name of operator	MVV Environment Devonport Limited
Location of Facility	Devonport Energy from Waste CHP
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution

To be notified within 24 hours of detection

Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit

To be notified within 24 hours of detection unless otherwise specified below

Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of MVV Environment Devonport Limited

Schedule 6 - Interpretation

"abatement equipment" means that equipment dedicated to the removal of polluting substances from releases from the installation to air or water media.

"accident" means an accident that may result in pollution.

"APC residues" means air pollution control residues

"application" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"authorised officer" means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"bi-annual" means twice per year with at least five months between tests;

"bottom ash" means ash falling through the grate and transported by the grate.

"CEM" Continuous emission monitor

"CEN" means Comité Européen de Normalisation

"daily average" for releases of substances to air means the average of valid half-hourly averages over a calendar day during normal operation.

"dioxin and furans" means polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans.

"disposal" means any of the operations provided for in Annex IIA to Directive 2008/98/EC of the Waste Framework Directive.

"emissions to land" includes emissions to groundwater.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"hazardous property" has the meaning given in Schedule 3 of the Hazardous Waste (England and Wales) Regulations 2005 No.894 and the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138).

"incineration line" means all of the incineration equipment related to a common discharge to air location.

"ISO" means International Standards Organisation.

"LOI" means loss on ignition a technique used to determine the combustible material by heating the ash residue to a high temperature

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"PAH" means Poly-cyclic aromatic hydrocarbon, and comprises Anthanthrene, Benzo[a]anthracene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[b]naph(2,1-d)thiophene, Benzo[c]phenanthrene, Benzo[ghi]perylene, Benzo[a]pyrene, Cholanthrene, Chrysene, Cyclopenta[c,d]pyrene, Dibenzo[ah]anthracene, Dibenzo[a,i]pyrene Fluoranthene, Indo[1,2,3-cd]pyrene, Naphthalene

"PCB" means *Polychlorinated Biphenyl*. Dioxin-like PCBs are the non-ortho and mono-ortho PCBs listed in the table below.

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"quarterly" for reporting/sampling means after/during each 3 month period, January to March; April to June; July to September and October to December and, when sampling, with at least 2 months between each sampling date.

"recovery" means any of the operations provided for in Annex IIB to Directive 2008/98/EC of the Waste Framework Directive.

"shut down" is any period where the plant is being returned to a non-operational state as described in the application or agreed in writing with the Environment Agency.

"start up" is any period, where the plant has been non-operational, after igniting the auxiliary burner until waste has been fed to the plant in sufficient quantity to cover the grate and to initiate steady-state conditions.

"TOC" means Total Organic Carbon. In respect of releases to air, this means the gaseous and vaporous organic substances, expressed as TOC. In respect of Bottom Ash, this means the total carbon content of all organic species present in the ash (excluding carbon in elemental form).

"Waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

"Waste Incineration Directive" means Directive 2000/76/EC on the incineration of waste (O.J. L 332, 28.12.2000)

"WFD" means Waste Framework Directive (Directive 2008/98/EC of the European Parliament and Council).

"WID abnormal operation" means any technically unavoidable stoppages, disturbances, or failures of the abatement plant or the measurement devices, other than continuous emission monitors for releases to air of particulates, TOC and/or CO, during which the concentrations in the discharges into air and the purified waste water of the regulated substances may exceed the normal emission limit values.

"year" means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- (a) in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.
- (b) in relation to gases from incineration and co-incineration plants other than those burning waste oil, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 11% dry.

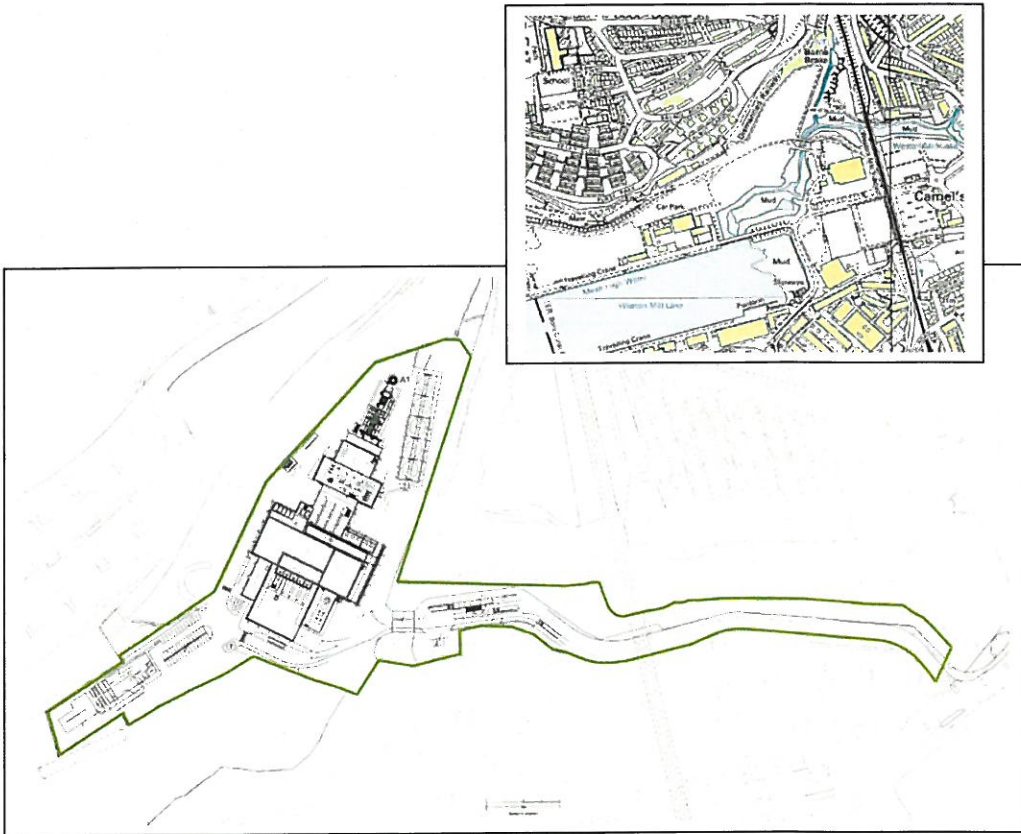
For dioxins/furans and dioxin-like PCBs the determination of the toxic equivalence concentration (I-TEQ, & WHO-TEQ for dioxins/furans, WHO-TEQ for dioxin-like PCBs) stated as a release limit and/ or reporting requirement, the mass concentrations of the following congeners have to be multiplied with their respective toxic equivalence factors before summing. When reporting on measurements of dioxins/furans and dioxin-like PCBs, the toxic equivalence concentrations should be reported as a range based on: all congeners less than the detection limit assumed to be zero as a minimum, and all congeners less than the detection limit assumed to be at the detection limit as a maximum.

TEF schemes for dioxins and furans				
Congener	I-TEF	WHO-TEF		
	1990	2005	1997/8	
		Humans / Mammals	Fish	Birds
Dioxins				
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	0.5	1	1	1
1,2,3,4,7,8-HxCDD	0.1	0.1	0.5	0.05
1,2,3,6,7,8-HxCDD	0.1	0.1	0.01	0.01
1,2,3,7,8,9-HxCDD	0.1	0.1	0.01	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.001	<0.001
OCDD	0.001	0.0003	-	-
Furans				
2,3,7,8-TCDF	0.1	0.1	0.05	1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.1
2,3,4,7,8-PeCDF	0.5	0.3	0.5	1
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8 HpCDF	0.01	0.01	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.01
OCDF	0.001	0.0003	0.0001	0.0001

TEF schemes for dioxin-like PCBs			
Congener	WHO-TEF		
	2005	1997/8	
	Humans / mammals	Fish	Birds
Non-ortho PCBs			
3,4,4',5-TCB (81)	0.0001	0.0005	0.1
3,3',4,4'-TCB (77)	0.0003	0.0001	0.05
3,3',4,4',5 - PeCB (126)	0.1	0.005	0.1
3,3',4,4',5,5'-HxCB(169)	0.03	0.00005	0.001

Mono-ortho PCBs			
2,3,3',4,4'-PeCB (105)	0.00003	<0.000005	0.0001
2,3,4,4',5-PeCB (114)	0.00003	<0.000005	0.0001
2,3',4,4',5-PeCB (118)	0.00003	<0.000005	0.00001
2',3,4,4',5-PeCB (123)	0.00003	<0.000005	0.00001
2,3,3',4,4',5-HxCB (156)	0.00003	<0.000005	0.0001
2,3,3',4,4',5'-HxCB (157)	0.00003	<0.000005	0.0001
2,3',4,4',5,5'-HxCB (167)	0.00003	<0.000005	0.00001
2,3,3',4,4',5,5'-HpCB (189)	0.00003	<0.000005	0.00001

Schedule 7 - Site plan



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