MVV Environment Devonport Ltd Energy from Waste Combined Heat and Power Facility, North Yard, Devonport

Planning Application Supporting Statement

May 2011

Prepared for

MVV Environment Devonport Ltd

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1 Introduction to the Proposed EfW CHP Scheme and Planning Application

1.1 Purpose of this Planning Application Supporting Statement

1.1.1 This Planning Application Supporting Statement (PASS) is part of a suite of documents submitted in support of an application for planning permission by MVV Devonport Environment Limited (MVV) for the construction and operation of an Energy from Waste Combined Heat and Power Facility (EfW CHP Facility) on land currently situated in the North Yard of Her Majesty's Naval Base (HMNB) Devonport, Plymouth. This PASS has been prepared by URS/Scott Wilson Limited on behalf of MVV.

1.1.2 This PASS introduces the planning application documents and describes the reasons for the planning application. This PASS also summarises the main elements of the proposed EfW CHP facility and considers the proposed development in the context of the development plan and other relevant material considerations.

1.1.3 The purpose of this PASS is to establish the case for the proposals and to provide the Plymouth City Council Waste Planning Authority (WPA) with a summary of the main information that it requires to determine the planning application. Much of the detail required by the WPA is contained in the appendices to this PASS and in the accompanying Environmental Statement (ES) and Traffic and Transport Assessment (TA) and therefore duplication of information between documents has been minimised. Consequently, this PASS should be read in conjunction with these supporting documents and is appropriately cross referenced throughout.

1.1.4 This PASS is structured as follows.

Section 1. Introduction, scheme synopsis and the reasons for the proposed development

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1.2 Synopsis of the Proposed EfW CHP Scheme and the Reasons for the Development at North Yard, Devonport

Overview

1.2.1 The proposed EfW CHP facility is the embodiment of sustainable development.

1.2.2 The facility will manage waste sustainably, helping to minimise and control the adverse environmental effects of waste that will not be recycled or reused, including the release of greenhouse gases that contribute to climate change, which are currently generated by landfilling.

1.2.3 The facility will also generate renewable energy to power and heat HMNB Devonport, and will replace the existing fossil-fuel-powered boilers and the importation of fossil-fuel generated electricity. The proposed CHP network and spare heat and energy can also be used by new industry in the area and will be made available to heat the proposed Help for Heroes swimming pool. The CHP component of the facility will therefore make a major contribution to the strategic and local economic objectives of the City of Plymouth, helping to safeguard existing jobs and to attract new jobs.

1.2.4 MVV will deliver leading-edge energy generation technology, which will very efficiently convert into energy waste that is not recycled, reused or composted. All waste management operations will take place in enclosed buildings and emissions from the combustion process will be cleaned to meet strict European standards. Emissions will be monitored by the Environment Agency and the results published on the MVV Environment Devonport website.

1.2.5 All waste deliveries and materials left over from combustion will be transported in enclosed or covered lorries or in sealed containers. All of the recyclable part of post-combustion materials will be sent for processing and the processed materials marketed for re-use.

1.2.6 The striking and iconic landmark EfW CHP building, using high quality materials, is intended to represent the best of sustainable development and to set a high standard for the regeneration of the North Yard area. The main building will be of a quality and appearance that the local

community and the people of Plymouth can be proud. The facility will interact with the local community, offering a resource to be used, in the form of meeting and educational space, a community terrace from which the Dockyard can be studied, and a biodiversity education resource. Local district heating is also being actively investigated by MVV, which is involved in a current market-testing exercise led by Plymouth City Council.

1.2.7 The proposed EfW CHP facility at North Yard is a unique opportunity to deliver an outstanding sustainable development and will make a significant contribution to meeting the strategic economic and environmental objectives of the City of Plymouth.

The Need for an EfW Facility

1.2.8 Managing the environmental and financial costs of managing waste generated by communities and business is a significant challenge for local authorities. Driven by European legislation and UK policy, there is a requirement for society to do more to satisfy the waste hierarchy. The waste hierarchy places 'prevention' of waste as the most favourable option, and for materials that have become waste, the hierarchy adopts and order of preference of waste management methods, starting with 'preparing for re-use', then 'recycling', followed by 'other recovery' (including generating energy from waste) and placing 'disposal' at the bottom of the hierarchy.

1.2.9 The responsibility to manage waste generated by households in England lies with local authorities. Through a competitive tendering process, MVV has been awarded the South West Devon Waste Partnership's (SWDWP) residual waste treatment and disposal contract. The contract was signed on 25 March 2011.

1.2.10 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 the residual waste from the southwest Devon area that it is not practical or economically viable to recycle, reuse or compost. Detailed information about the SWDWP, the procurement process and the background to this planning application can be found at the SWDWP website (http://www.plymouth.gov.uk/swdwp.html).

1.2.11 MVV's proposal is to construct and operate an EfW CHP facility, on land currently situated in the North Yard part of HMNB Devonport, Plymouth.

1.2.12 Currently in the SWDWP area, a number of local authority initiatives are in place to make sure that government targets for recycling municipal solid waste (MSW) (i.e. largely waste generated by households) are met. Local authorities currently don't have a remit to manage the majority of waste produced by businesses, known as commercial and industrial (C&I) waste, unless businesses request them to do so.

1.2.13 Each of the Partnership authorities has its own municipal waste management strategy and collectively the SWDWP has produced a Joint Municipal Waste Management Strategy[1]

[1] South West Devon Waste Partnership, Plymouth, Devon and Torbay Joint Municipal Waste Management Strategy Statement (Appendix 3D of SWDWP Procurement of Waste Treatment Services Outline Business Case).

(JMWMS). This strategy includes proposals to deliver a recycling rate for municipal waste of over 50% recycling by 2019/20, which is in line with national government targets. However, it is not viable to recycle all waste produced by households and businesses and the movement of waste management up the waste hierarchy requires new facilities to manage the 'residual' waste that would otherwise be sent to landfill.

1.2.14 At present in the SWDWP area, landfill is the only means of disposal of residual municipal waste generated in the SWDWP area. Failure by local authorities to respond to European legislation and national policy targets for diversion of waste away from landfill will result in significantly increased costs of waste management, both from the increased cost of landfill due to the landfill tax, and from fines imposed on authorities that don't meet targets. Continuing to landfill at current levels will also incur the environmental costs for the community as a whole associated with this least environmentally sustainable form of waste management.

1.2.15 The SWDWP was formed to deliver a unified solution for the delivery of the individual waste management strategies of Plymouth, Devon and Torbay Councils, which were broadly aligned in terms of identifying a thermal treatment solution as the preferred residual waste management method. By working together, the authorities identified benefits in economies of scale and the ability to attract PFI credits.

1.2.16 The SWDWP undertook an evaluation of alternative options for the management of residual municipal waste, which included forecasting the most likely quantities of residual waste that would require management in the future, taking into account the need to optimise recycling rates and forecast population growth. Evaluation of different technology and locational options include the consideration of a range of factors, including planning, technical, environmental and financial matters. The outcome of this evaluation process was that a single EfW facility was required to manage a range of residual waste inputs from the SWDWP authority areas, estimate to rise from 168,000 tonnes per annum (tpa) in 2014/15 to 203,000 tonnes per annum (tpa) by 2038/39.

1.2.17 A separate evaluation by MVV and independently supported by research commissioned by Defra, concluded that a similar amount of C&I waste generated in the SWDWP area is available for treatment, to avoid sending it to landfill. For commercial reasons, it is likely that not all of this waste will be available to MVV for processing in the EfW CHP facility, but the capacity of the facility has been selected to allow the processing of approximately the equivalent of the amount of C&I waste arising in Plymouth, in addition to the amount of MSW needing treatment.

1.2.18 The proposed annual capacity of the EfW CHP facility is in the order of 245,000 tonnes per annum. However, the facility will have capacity to process under certain conditions up to 265,000 tonnes of residual waste per annum, depending variations in the composition/calorific value of the waste received and in the amount of time required for routine maintenance each year. The capacity of the EfW CHP Facility allows for the implementation of recycling initiatives that will meet and exceed national recycling targets. More information on the capacity of the EfW CHP and the sources of waste is provided in Section 7 of this PASS and in Environmental Statement Chapters 3 and 6.

1.2.19 More details of the need for an EfW facility can be found in this Planning Application Supporting Statement in Section 7 and in Chapter 3 of the ES (submitted in support of this planning application). Full details of the waste modelling (forecasting) and options evaluation undertaken by the SWDWP can be found at: http://www.plymouth.gov.uk/swdwp.html.

The EfW CHP Process

1.2.20 Waste will be collected from households and businesses and delivered to the EfW CHP facility in lorries. Generally, waste collected locally in Plymouth will be direct-delivered in familiar household refuse collection vehicles (RCVs), whilst waste collected in outlying authority areas will be taken to waste transfer stations and transferred to larger-capacity bulk carrier lorries, for transfer to the facility. All waste delivery vehicles will be enclosed or sheeted.

1.2.21 The EfW CHP facility will treat only residual municipal solid waste and commercial and industrial waste delivered by contracted heavy goods vehicles. The facility will not manage hazardous waste and will not be open to the general public or to ad-hoc commercial waste deliveries.

1.2.22 Once at the facility, all waste processing takes place within enclosed buildings. Waste will be deposited in a bunker and transferred to the incineration grate where it will be burned. Residues from the combustion process (known as incinerator bottom ash) will be collected and transferred off-site in enclosed lorries, for recycling into a product than can be used in construction.

1.2.23 Gases from the combustion process will be cleaned to meet stringent standards set by the EU and policed by Environment Agency. Exhaust gases will be continually monitored, with the results published on the applicant's website and regularly inspected by the Environment Agency. Combustion gases will be cleaned using specialist equipment and the residues from this process (known as air pollution control residue - APCr) will be collected separately and transported off-site for safe disposal in sealed tankers.

1.2.24 The storage of delivered waste and of the products of combustion will take place entirely within the EfW CHP building.

1.2.25 Heat produced from the waste combustion process will be used to generate steam. The steam will be used directly as a local source of heat in the Dockyard and to drive a steam turbine and generate renewable electricity.

1.2.26 A fuller description of the proposed EfW CHP facility development is provided in Section 5 of this PASS and in Chapter 6 of the ES.

North Yard, Devonport and Alternative Sites

1.2.27 HMNB Devonport has been providing support to the Royal Navy since 1651 and the ships that defeated the Spanish Armada in 1588 sailed from the mouth of the River Plym. Devonport is the base port of the largest ship in the Royal Navy and there are fourteen Type 22 and Type 23 frigates, seven Trafalgar class submarines and four of the five hydrographic ships forming the Royal Naval Surveying squadron. It is also the base for the Royal Navy's three amphibious support ships. Alongside its surface ship refitting facilities, HMNB Devonport is the only site in the UK equipped to conduct nuclear submarine refits, including those for the Vanguard class.

1.2.28 HMNB Devonport (operated by the Ministry of Defence (MoD)) and Devonport Dockyard (operated by Babcock) are separate sites, but sit side by side and work together as a pair, which are referred to collectively as 'the Dockyard' in this PASS.

1.2.29 HMNB Devonport is owned and operated by the MoD. It is the largest naval base in Western Europe (650 acres and 3.5 miles of waterfront) and it is nearly three times the size of Portsmouth Naval Base. The Naval Base site has 14 dry docks, four miles of waterfront, 25 tidal berths and five basins. Each year there are over 5,000 ship movements and the MoD estimates that:

- the Dockyard generates approximately 13% of Plymouth GVA income;
- 4,036 personnel on ships and submarines are based in Devonport;
- 475 Naval service personnel are employed in naval support together with 380 civilians;
- 4,300 people are employed by Babcock at Devonport Dockyard;
- approximately a further 7,000 jobs dependant upon the Dockyard; and
- the base generates business opportunities for 400 local firms.

1.2.30 Over the years there has been considerable investment at Devonport. Some of the more recent works include the building of modern berthing facilities at Weston Mill Lake Jetty and in 2002 work was completed on No 9 Dock transforming it from a battleship dock into a nuclear refitting facility for Vanguard Class submarines. The total value of the Vanguard Class refit programme is in excess of £1 billion and will help to guarantee work in the Plymouth area for at least the next decade.

1.2.31 The MoD has a range of committed and planned uses for HMNB Devonport, including long term contracts with its delivery partners, for refitting ships and submarines, the Fleet Accommodation Centre, Flag Officer Sea Training and Help for Heroes Centre. The Strategic Defence and Security Review confirmed a commitment to renew the strategic deterrent that will replace the Vanguard submarine, further reinforcing Devonport's long-term future. Devonport has been shortlisted as a potential site to deliver further de-commissioning of submarines over a 60 year period.

1.2.32 Weston Mill Lake and No 9 Dock are part of the 'North Yard' area of HMNB Devonport. The location of the EfW CHP facility at North Yard, to the north/north-east of Weston Mill Lake, has been carefully selected by MVV, following detailed consultation with the MoD. The EfW CHP facility will supply the Dockyard with electricity and steam will also be extracted from the turbine and fed directly into the existing Dockyard and HMNB steam network to be used for heating purposes. As a direct result, the annual energy bill for the Devonport Dockyard & the Naval Base will be reduced by around 20% for 25 years.

1.2.33 The MoD has rationalised its operations at Devonport in recent years, a process that has included disposal of land. In the drive to reduce operating costs, carbon emissions and sustain employment, the MoD sees the proposed EfW CHP facility as making an important contribution to the creation of a sustainable business, to saving jobs and creating new employment opportunities and as a vital part of the Dockyard regeneration. Appendix 4 to this PASS provides full details of the energy and employment benefits of the EfW CHP scheme.

1.2.34 The specific location of the EfW CHP facility offers a unique opportunity to provide renewable energy to the Dockyard and allows the existing gas and oil-fuelled generators to be switched off permanently, other than in the short periods when the EfW CHP facility is undergoing routine annual maintenance. In doing so, the facility at North Yard will improve the economic viability of the Dockyard and will in turn make an important contribution to sustaining the local communities that rely on the jobs and business generated by the dockyard. A full evaluation of the social and economic effects of the proposed EfW CHP facility is provided in Chapter 17 of the Environmental Statement. A full description of the production and use of CHP and the economic and employment benefits of the EfW CHP scheme is provided in Appendix 4 to this Planning Application Supporting Statement, the Energy, Economy, Employment and Education Benefits Statement.

1.2.35 In developing its proposals for the SWDWP contract, MVV considered alternative sites for locating the EfW CHP Facility. Alternatives were evaluated against planning policy, covering environmental, amenity and deliverability criteria, including contribution to renewable energy provision. MVV concluded that no other site, outside or within the Dockyard, would result in fewer environmental impacts overall and a more deliverable CHP opportunity, than the North Yard, Devonport site. An account of this process is provided in Chapter 5 of the Environmental Statement, and a summary is provided in Section 8 of this PASS.

The Design of the EfW CHP Facility at North Yard, Devonport and the Local Community

1.2.36 The specific location of the EfW CHP facility within North Yard was agreed in consultation with the MoD and meets the MoD's requirements for a site with a dedicated access and a secure location, outside the secure perimeter of HMNB.

1.2.37 The development site is located at the edge of the active dockyard, close to a residential area which is at a higher ground level compared to the development site. The planning application boundary includes an area of woodland in a small valley.

1.2.38 The EfW CHP facility will be a large building, 45m high at the highest point and 134m long, with a width varying between 30 and 81m and an exhaust stack 95m high. The orientation and architectural design of the main building were carefully considered and developed by an independent architect and landscape architect. The orientation of the site is designed to optimise the relationship of the main building with the nearest residential area and to minimise the visual impact of the building.

1.2.39 A comprehensive landscaping scheme is proposed, which includes:

- planting to reduce the visual impact of the building;
- community facilities including an informal sports pitch and recreation area;
- management of woodland for biodiversity, which will form an educational resource for groups visiting the facility, including local schools;
- access to the woodland and to viewing areas over the tidal area adjacent to the eastern boundary of the site, for use as an educational resource; and
- the provision of a large roof terrace, incorporating space for visitors to view the facility and the dockyard (where visitors can learn about sustainable waste management, sustainability issues and the historic dockyard) and a large exhibition space for artwork, which will be surfaced with material that will also provide a biodiversity enhancement.

1.2.40 The main EfW CHP facility building will include an administration centre, within which meeting room / classroom facilities will be made available for use by local community groups and schools. The administration centre will be staffed by the local community liaison officer, who will arrange bookings and co-ordinate access to the community.

1.2.41 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. The design response is an elegant, high quality landmark building which responds to its environment, whilst taking care to build-in measures to minimise potential impacts on amenity, including impacts from noise and lighting and on views.

1.2.42 The EfW CHP Facility has been designed to interact with the local community and generate pride in a valuable community resource and in a visually pleasing structure, which communicates its contribution to a secure, sustainable economic future for the historic Dockyard.

1.2.43 The proposed EfW CHP facility is an outstanding example of a truly sustainable building, at the heart of a sustainable neighbourhood.

2 The Planning Application and Accompanying Documents

2.1.1 This application has been prepared in accordance with the provisions of the Town and Country Planning Act (1990) (as amended), and the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended). As the proposed development falls within Schedule 1 of the EIA Regulations, the application is required to be accompanied by an Environmental Statement (ES).

2.1.2 This planning application is accompanied by this Planning Application Supporting Statement (PASS), a number of documents appended to this PASS, including a Design and Access Statement (DAS) and an ES and a Non-Technical Summary (NTS) of the ES. A list of the planning application and accompanying documents is provided below and Table 2.1 lists the planning application plans. The ES contains detailed information about the proposed development, the development site, and the potential environmental effects. Together, these documents are intended to provide the information to be considered by the Waste Planning Authority (WPA) in its determination of the application for planning permission.

List of Planning Application and Accompanying Documents

- Application Form
- Planning Application Fee
- Ownership Certificate
- Agricultural Holdings Certificate
- Notices
- Planning Application Drawings (refer to Table 2.1)
- Planning Application Supporting Statement
  - o Appendix 1 - Design and Access Statement
  - o Appendix 2 – Statement of Community Involvement
  - o Appendix 3 - Sustainability Statement (incorporating BREEAM and WRATE assessments)
  - o Appendix 4 – Energy, Economy, Employment and Education Benefits Statement
  - o Appendix 5 – Health and Wellbeing Assessment
  - o Appendix 6 – Habitats Regulations Assessment
  - o Appendix 7 – Planning Policy Analysis
  - o Appendix 8 – Section 106 Heads of Terms
- Environmental Statement (Volume 1 – Main Text)
- Environmental Statement (Volume 2 – Figures)
- Environmental Statement (Volume 3 – Appendices)
- Environmental Statement (Volume 4 – Non-Technical Summary)

Table 2.1 List of Planning Application Plans and Drawings

Number	Title
PA01	Site Location Plan
PA02	Planning Application Boundary
PA03	Existing Site Topography
PA04	Aerial Photograph
PA05	Proposed Site Layout
PA06 A-D	Main Building Elevations
PA07 A-E	Sections
PA08 A-E	Main Building Floor Plans / Roof Plan
PA09 A-B	Administration Building
PA10	Air Cooled Condenser Elevation
PA11	Gatehouse Plan and Elevations
PA12	Stores and Workshop Plan and Elevations
PA13	Cycle Shed
PA14	Transformer Enclosure
PA15	Emergency Generator Elevation and Section
PA16	North Intake Substation Elevation
PA17	Landscape Masterplan
PA18 A-C	Landscape Sections
PA19 A	Site Access
PA19 B	Site Access Long Section
PA20 A	Bull Point Access Road
PA20 B	Bull Point Access Road Tracking Layout
PA21	Drainage Plan
PA22	Clear Span Bridge Plan and Elevation
PA23	Connections to Infrastructure

The Pollution Control Regime

2.1.3 In addition to a requirement for planning permission for the EfW CHP development under the Town and Country Planning Act 1990, in order to operate, the EfW CHP will require an Environmental Permit under the Environmental Permitting (England and Wales) Regulations 2010. Government planning policy in Planning Policy Statement (PPS) 10 and PPS23 is clear that control of land use matters lies with the planning authority and control of pollution lies with the Environment Agency and that duplication of control should be avoided. For example, PPS10 states 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 not with the control of processes which are a matter for the pollution control authorities*" An Environmental Permit application for the MVV EfW CHP has been prepared in parallel with this planning application and EIA and will be submitted shortly after the planning application.

2.1.4 There are some pollution control matters which will be the direct responsibility of Plymouth City Council such as the Construction Environment Management Plan and the assessment of off-site impacts arising from the development such as traffic. A Site Waste Management Plan will also be prepared and the assessment of this document can be undertaken by the Planning Authority; the Environmental Health Authority or the Environment Agency.

MoD Risk Assessments

2.1.5 A Warships-in-Harbour Risk Assessment, Nuclear Safety Case Risk Assessment and Helicopter Flight Path Risk Assessment have all been carried out by the MoD (see Appendix 6.1 to the Environmental Statement) and no restrictions on the proposed EfW CHP facility have been identified. The Nuclear Installations Inspectorate (Health and Safety Executive), will be consulted by the Waste Planning Authority on the Planning Application and by the Environment Agency on the Environmental Permit application and will comment on the suitability of the Health and Safety risk management arrangements. The Environmental Permit application will include an Accident Management Plan which will identify accident risk and appropriate controls and mitigation measures.

Planning Application Validation Requirements

2.1.6 The scope of information provided to accompany this planning application meets the requirements of the relevant legislation, regulations and guidance listed below.

- Town and Country Planning Act 1990 (Section 62).
- General Development Procedure Order 1995 (as amended by the GDPO 2008 (Part 2, new Section 4E – the National List)).
- Development Management Policy Annex: Information requirements and validation for planning applications. (CLG) March 2010.
- Guidance on information requirements and validation. (CLG) March 2010.
- 'Plymouth City Council - Validation Requirements' (Plymouth City Council Validation JUL 10 v4) (the 'Local List'), adopted 31 August 2010.

2.1.7 Government policy on the information which must be provided in support of planning applications is set out in the Development Management Policy Annex on information requirements and validation[2]. Further government guidance is provided in 'Guidance on information requirements and validation'[3]. The Development Management Policy Annex states that the information required to make a valid planning application comprises:

- *"mandatory national information requirements specified in the GDPO, including a design and access statement where one is required*

[2] Development Management Policy Annex: Information requirements and validation for planning applications. (CLG) March 2010.
[3] Guidance on information requirements and validation. (CLG) March 2010.

- *The standard application form*
- *Information to accompany the application as specified by the local planning authority on their local list of requirements"*

2.1.8 Policy INF 1.2 of the Annex states that "*Any supporting information should add to the local planning authority's understanding of the development scheme……the information requested and provided should help to explain the nature of the proposed development, its anticipated impacts – positive and negative – and any measures that are proposed to mitigate any adverse impacts.*"

2.1.9 The information submitted in support of this planning application has been assembled with regard to the requirements of the government 'Development Management Policy Annex' and the 'national list' of information required to make a valid planning application in 'Guidance on information requirements and validation'. Full regard has also been paid to the Plymouth City Council 'Local List'. The national and local lists of planning application validation requirements are designed to ensure that sufficient information is submitted in support of planning applications to enable the Local Waste Planning Authority to determine the application having considered all of the key relevant planning considerations, including any potentially significant environmental effects.

2.1.10 Pre-application consultation meetings were held with the Waste Planning Authority between July 2010 and April 2011. Table 2.2 provides a comparison of the 'national list' and Plymouth City Council 'Local List' with the documents submitted to accompany this planning application.

Table 2.2 Comparison of Government National List and Plymouth City Council 'Local List' With Planning Application and Accompanying Documentation

National List	Document Submitted
Application Form	Planning Application Form
Ownership Certificate	Certificate B
Agricultural Holding Certificate	Agricultural Holdings Certificate
Site Location Plan	Drawing PA01
Plans and drawings	Planning Application Plans (See Table 2.1)
Correct fee	Fee paid to PCC by the applicant
Design and Access Statement	Design and Access Statement (Planning Application Supporting Statement Appendix 1)
Local List	**Document Title**
Affordable Housing Statement	None – not relevant
Air Quality Assessment	Environmental Statement Chapter 13
Archaeological Statement	Environmental Statement Chapter 9
Statement of Community Involvement	Planning Application Supporting Statement Appendix 2 (Statement of Community Involvement)
Contaminated land Assessment	Environmental Statement 10
Ecological Mitigation and Enhancement Strategy	Environmental Statement Chapter 7 Environmental Statement Chapter 8 Design and Access Statement
Environmental Statement	Environmental Statement
Energy Statement	Planning Application Supporting Statement Appendix 4 (Energy, Economy Employment and Education Benefits Statement)
Flood Risk Assessment (FRA) and Drainage Strategy	Environmental Statement Chapter 11 & Appendix 11.1
Foul Sewage and Utilities Statement	Environmental Statement Chapter 6 & 11
Heritage Statement	Environmental Statement Chapter 9
Landscaping Scheme	Design and Access Statement Environmental Statement Chapter 8
Lifetime Homes Statement	Not Relevant
Noise Assessment	Environmental Statement Chapter 14
Planning Obligations	Planning Application Supporting Statement Appendix 8. (Planning Application Supporting Statement includes provisional heads of terms at Section 3.)
Details of applicant's solicitor and original up to date title deeds	By separate correspondence
Parking Provision	Design and Access Statement Environmental Statement Chapter 6

National List	Document Submitted
Refuse Disposal	Planning Application Supporting Statement
Site Waste Management Plan	Environmental Statement Appendix 15.1
Tall Buildings Report	Design and Access Statement
Town centre uses – evidence to accompany applications	None – not relevant
Transport Assessment inc. Transport Statement and Travel Plan	Environmental Statement Chapter 12 and Appendix 12.1
Tree Survey / Arboricultural Implications	Environmental Statement Chapters 7 & 8
Telecommunications Development – supplementary information	None – not relevant
Ventilation/Extraction Statement	Environmental Statement Chapter 6

2.1.11 Further assessment of the key planning application considerations relevant to this planning application is provided in Section 3 of this Statement, including Table 3.1 which signposts the documentation in which the assessment of these considerations is reported.

Environmental Impact Assessment

2.1.12 The Statutory Instrument implementing the EIA Directive for the purposes of planning applications, and under which this ES is submitted, is the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (SI No. 293) (as amended). For succinctness, these Regulations are referred to in this report as the 'EIA Regulations'.

2.1.13 The process of determining whether or not an EIA is required for a given development project is known as 'screening'. The EIA Regulations include two lists of different types of development projects. The first list is Schedule 1, which identifies all types of projects for which EIA is mandatory. The second list is Schedule 2, which identifies the types of projects for which EIA may be required if the project in question is considered likely to give rise to significant environmental effects.

2.1.14 The proposed development falls under Schedule 1 of the EIA Regulations, as it will incinerate or chemically treat more than 100 tonnes of waste per day, and EIA is therefore mandatory. On this basis, no formal Screening Opinion has been sought from the Planning Authority.

2.1.15 EIA Scoping is the process of identifying the issues to be addressed in the EIA. It aims to focus the EIA on the likely environmental impacts that require further attention, whilst determining the impacts that are unlikely to require additional study. A request for an EIA scoping opinion was submitted to Plymouth City Council Waste Planning Authority on 21 June 2010, accompanied by an EIA Scoping Report. The scoping opinion of Plymouth City Council was received on 28 July 2010. Copies of the Scoping Report and the scoping opinion can be found at Appendices 2.1 and 2.3 of the ES respectively.

Community Consultation

2.1.16 During the period from February 2010 to March 2011 MVV has undertaken a comprehensive programme of community consultation. In undertaking this consultation, MVV has endeavoured to be inclusive in all its communications with the local community and its elected representatives. MVV is constantly reviewing its communication programme, in consultation with SWDWP and Plymouth City Council, as well as representatives of the local community.

2.1.17 The programme has so far encompassed contact with:

- Members of Parliament
- Local elected councillors
- Local residents
- Local Employers
- Employees in the Royal Naval Base Devonport
- Representatives of local action groups
- Members of other representative organisations

A full report of the community consultation process is provided in the Statement of Community Involvement (at Appendix 2 to this PASS) and a summary of the SCI is provided in Section 10 of this PASS.

2.2 The Applicant and Other Parties Involved in the Project

MVV Environment Devonport Ltd

2.2.1 MVV Environment Devonport Limited is a wholly owned subsidiary of MVV Umwelt GmbH, a leading German energy from waste company. MVV has competitively tendered for and been awarded the SWDWP Residual Waste Treatment and Disposal Contract and has submitted this application for planning permission to construct the EfW CHP facility.

2.2.2 The MVV project management team for the proposed EfW CHP facility includes, amongst others, experienced waste planners and engineers. The project team and its advisors have extensive experience of preparing planning applications and associated ESs for similar waste management proposals.

URS Scott Wilson

2.2.3 URS Scott Wilson has been employed by MVV as planning and environmental consultants and has prepared the planning application documents including this ES.

2.2.4 URS Scott Wilson is one of the leading multidisciplinary consultancies in the UK and has considerable experience of co-ordination of complex EIAs and obtaining planning permission for major waste management facilities. URS Scott Wilson is the Royal Town Planning Institute Planning Consultancy of the Year for 2009 and is a Registered Assessor with the Institute of Environmental Management and Assessment.

MVV O&M

2.2.5 MVV O&M is responsible for the plant design and construction, employing a variety of international and local subcontractors to achieve this.

Savage and Chadwick

2.2.6 Savage and Chadwick is the architect and has designed EfW facilities elsewhere in the UK and Isle of Man.

Kier

2.2.7 Kier is the civil engineering contractor.

Ministry of Defence

2.2.8 The Ministry of Defence (MoD) is the owner of the site and has agreed to lease the EfW CHP facility site to MVV.

3 The Main Planning Considerations

3.1 Assessment of Main Planning Considerations

3.1.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that determination of applications for planning permission be made in accordance with the development plan unless material considerations indicate otherwise. The main planning considerations for this planning application are therefore the policies of the development plan and the main other relevant material considerations, which are described in the following sections.

3.1.2 Sections 6-11 of this Supporting Statement demonstrate how this planning application for the MVV EfW CHP Facility is consistent with the main planning considerations.

3.1.3 The applicant has undertaken a thorough assessment of the main planning considerations, including the following activities.

- A review of the development plan.
- A review of national planning policy and other relevant policy and strategy.
- A review of the national and local lists of information required to accompany a planning application.
- Pre-application consultation meetings with Plymouth City Council Waste Planning Authority.
- Pre-application consultations (meetings and correspondence) with Plymouth City Council officers, including the Highways Authority and Environmental Health Officer/Public Protection Service.
- Pre-application consultations with statutory and other consultee organisations, including the Environment Agency, English Heritage, the Highways Agency, Natural England and the South West Design Review Panel.
- An application on 21 June 2010 to Plymouth City Council as Waste Planning Authority for an EIA Scoping Opinion (the scoping opinion was received on 28 July 2010)
- Pre-application community consultation, as reported in the Statement of Community Involvement (Appendix 2)

3.1.4 This assessment process has enabled the applicant to thoroughly identify and address the main planning considerations within the planning application and accompanying documentation.

The Development Plan

3.1.5 A summary of the development plan as it is relevant to this planning application is provided in Section 6 of this PASS. The Plymouth Waste Development Plan Document 2006-2021 (PWDPD) is the main development plan document relevant to the determination of applications for waste management development in Plymouth.

3.1.6 The PWDPD includes land allocations for waste management facilities, but the Devonport site (the subject of this planning application) is not one of the allocated sites. However, PPS10 (at paragraph 24) recognises that there needs to be flexibility in determining planning applications for waste management facilities on unallocated sites, stating that applications should be considered favourably when consistent with PPS10 and the Core Strategy. The PWDPD caters for circumstances where planning permission is sought for waste management development on un-allocated sites in Policy W7 – Unallocated sites. Policy W7 is reproduced below.

Waste DPD Policy W7 - Unallocated Sites

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.

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, and that the impacts of the development can be adequately mitigated and the development proposal otherwise performs well in relation to the other criteria of this policy.

3. They are compatible with their environmental setting and will not result in unacceptable impacts on important environmental, historic or cultural assets.

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 users that would be sensitive to waste management development.

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.

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.

3.1.7 The PWDPD also includes a policy (W8) against which all planning applications for waste management development will be assessed. Policy W8 is reproduced below.

Waste DPD Policy W8 - Considerations for Waste Development Proposals

Development proposals for waste management facilities will be permitted where they comply with the following criteria:

1. They do not have unacceptable impacts on environmental, social or economic assets.

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.

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.

4. Appropriate mitigation measures shall be provided to minimise any nuisance caused by the attraction of flies / insects, birds or vermin to the facility.

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.

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.

7. Adequate space shall be provided on site to ensure vehicles can enter the site, wait, be unloaded and leave safely.

8. The proposal can adequately mitigate other adverse impacts.

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.

10. The proposal is compatible with the principles of sustainable waste management and associated policies as set out in national, regional policy and in the Core Strategy, as well as the Municipal Waste Management Strategy and Action Plan.

11. All buildings should incorporate measures consistent with the principles of sustainable design and construction equivalent to the current BREEAM excellent standard.

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.

3.1.8 The criteria of Policy W7 and W8 cover a wide range of environmental and amenity issues that have been identified through the pre-application consultation process as being important considerations in the determination of this planning application.

Other Material Considerations

3.1.9 In addition to a detailed review of the development plan, in order to determine the main material considerations, the applicant has undertaken an extensive review (as described in paragraph 3.1.3) of national planning policy, other relevant planning policy, waste management strategy, other relevant policy (including local strategies) and an extensive pre-application consultation programme.

3.1.10 A detailed consideration of relevant policy and strategy is set out in Chapter 6 of this PASS, which identifies three main policy themes of 'need', 'sustainable development' and 'environmental and amenity effects'. Table 3.1 provides a summary of these main planning considerations identified following the review process described above, and particularly the review of the development plan, national planning policy and waste management strategy. Table 3.1 is not intended to be an exhaustive list of all material considerations, but it signposts the relevant supporting evidence documents that have been prepared to allow an examination of how the proposed EfW CHP Facility performs in relation to each main consideration.

3.1.11 This PASS addresses these main planning considerations, but much of the supporting evidence is contained in the ES, its appendices and in the appendices to this PASS. The ES is accompanied by a non-technical summary and Appendix 7 to this Statement provides a detailed assessment of the compliance of the proposed development with the development plan and with national planning policy.

Table 3.1. Main Planning Application Considerations

Main planning consideration	Supporting document(s)
Compliance with the development plan and PWDPD Policy W7 in particular.	PASS Section 11 Development Plan Analysis (PASS Appendix 7)
POLICY THEME - NEED	
Compliance with waste management strategy and policy on the diversion of waste from landfill and meeting the need for new waste treatment capacity.	PASS Section 7 ES Chapter 3
POLICY THEME – SUSTAINABLE DEVELOPMENT	
Compliance with waste management policy and strategy, including waste hierarchy (including management of bottom ash and air pollution control residues), recovery targets and sustainable waste management.	PASS Section 6-9 ES Chapter 3 ES Chapter 6
Addressing the causes of climate change, including carbon management. Contribution to supply of renewable energy, including the potential for local use of heat and power).	PASS Section 8 and 10 Energy, Economy, Employment and Education Benefits Statement (PASS Appendix 4) Sustainability Statement (PASS Appendix 3)
Economic benefits, Plymouth City regeneration and sustainable neighbourhood objectives and socio-economic impacts.	PASS Section 8 and 10 ES Chapter 17 Energy, Economy, Employment and Education Benefits Statement (PASS Appendix 4)
Sustainable construction and operation – resource and energy use implications. BREEAM Excellent is achievable.	PASS Section 8 and 10 Sustainability Statement (PASS Appendix 3) ES Chapter 15
Alternatives, including sites	PASS Section 8

Main planning consideration	Supporting document(s)
	ES Chapter 5
Compatibility with other sustainable development objectives.	PASS Section 8-11 Design and Access Statement (PASS Appendix 1) Sustainability Statement (PASS Appendix 3) Energy, Economy, Employment and Education Benefits Statement (PASS Appendix 4) ES
POLICY THEME – ENVIRONMENTAL AND AMENITY EFFECTS	
Building design, site layout, landscaping and architecture – potential impacts on the landscape, including designated areas and on views.	PASS Section 9 Design and Access Statement (PASS Appendix 1) ES Chapter 8
The local community – impact on residential amenity and community matters	PASS Section 9 ES Design and Access Statement (PASS Appendix 1) Statement of Community Involvement (PASS Appendix 2) Energy, Economy, Employment and Education Benefits Statement (PASS Appendix 4) Draft Section 106 Legal Agreement
Ecology – Potential impact on designated areas (including SAC and SSSI) and areas of local value (including impact due to change in air quality).	PASS Section 9 ES Chapter 7 Habitats Regulations Assessment (PASS Appendix 6)
Cultural Heritage – Including potential impact on listed buildings at HMS Drake	PASS Section 9 ES Chapter 9
Contamination – Including potential impact of contaminated land on land and water quality, including groundwater and Weston Mill Creek. Potential unexploded ordnance.	PASS Section 9 ES Chapter 10
Hydrology & Hydrogeology – Including potential impact on Western Mill Creek, site drainage and surface water and flood risk management	PASS Section 9 ES Chapter 11 ES Appendix 11.1
Traffic – Including potential impact of lorries on the road network and on the amenity of neighbouring uses. Implications of changes to site access.	PASS Section 9 ES Chapter 12 ES Appendix 12.1
Air quality, health and climate – Including potential impact on Air Quality Management Areas and on human health and climate change from process and traffic emissions and the potential impacts of dust, particulate matter, bio-aerosols and odour.	PASS Section 9 ES Chapter 13 Health & Wellbeing Statement (PASS Appendix 5)
Noise and vibration – Including potential impact on neighbouring property (residents and workers) and on ecology from noise from construction and operation.	PASS Section 9 ES Chapter 14
Daylight and sunlight – Including potential impact of EfW building on neighbouring land in terms of natural light and overshadowing.	PASS Section 9 ES Chapter 16
Cumulative effects – For example, the potential for several different types of impact, whilst not significant in isolation, to be cumulatively significant.	PASS Section 9 ES Chapter 19

3.1.12 Where possible and appropriate, design measures required to mitigate potential environmental impacts at a level of detail that would normally be reserved for planning conditions, have been included as part of the proposed development for which the planning application is being made. This 'front loading' approach provides confidence that the proposals have fully taken account of the recommendations made by pre-application consultees and that the potential environmental affects will be minimised to a level acceptable to the Waste Planning Authority.

3.1.13 In addition, MVV will enter into a legal agreement with Plymouth City Council to secure the delivery of a number of off-site measures that are necessary to mitigate any potential adverse impacts caused by the proposed EfW CHP development. Provisional details of the main matters covered by the legal agreement are set out in the next section.

Legal Agreement

3.1.14 MVV intends to enter into a legal agreement with Plymouth City Council in order to manage the delivery of certain requirements relating to the proposed EFW CHP development. The legal agreement will address matters that cannot be secured via planning conditions, but which are directly related to the proposed development and necessary to make the proposed development acceptable in planning terms.

3.1.15 An outline of the proposed heads of terms of a legal agreement is set out below and full details are provided in Appendix 8 to this PASS. The heads of terms are provisional and have been informed by feedback received from the local community during the community engagement exercise undertaken by MVV (as described in the SCI (PASS Appendix 2)) and will be developed further during the determination process, to take account of further feedback on consultation on the planning application documents. MVV intends to pro-actively engage with the Planning Authority during the determination period in order to complete a full draft legal agreement before the planning application is determined.

Outline list of legal agreement heads of terms.

1 To provide connections to the existing heat and power distribution network in HMNB Devonport and supply energy in the form of renewable heat and electricity generated from the EfW CHP facility. To use reasonable endeavours to ensure that such heat and electricity is also made available to the Help for Heroes and DLCCP developments.

2 To work with the Council to develop further CHP and district heating opportunities in the City and to share expertise including:

- Provisions for monitoring the reduction in Dockyard energy usage and carbon emissions, resulting from the supply of heat and electricity by the EfW CHP facility.
- Subject to EU rules, participation in the wider Plymouth district heating procurement process conducted by the Plymouth District Heating Procurement Partnership.
- Subject to the results of a commercial feasibility study of district heating proposals for the supply to adjacent areas at Barne Barton (to be carried out by MVV within 12 months of granting of consent), to make proposals to deliver district heating and/or carbon reductions in neighbouring areas at Barne Barton.
- Subject to the results of a commercial feasibility study of district heating proposals for the supply to adjacent areas at Keyham/St. Budeaux/Weston Mill/Devonport, to

make proposals to deliver district heating connections or make future provision for connection with existing or new developments at Keyham/St. Budeaux/Weston Mill/Devonport.

3 To support a local employment scheme which will set out mechanisms for securing the use of local labour, contractors and goods and services where appropriate during the construction and operation of the project.

4 To provide reasonable sponsorship of up to 5 apprenticeships per annum in the City including supporting placements with the City College Plymouth and Plymouth University during the operational life of the EfW CHP facility.

5 To employ a full time Community Liaison Manager to educate the local community on recycling and support SWDWP's work to achieve a per capita reduction in waste arisings within the Partnership area and to achieve a combined waste recycling and composting rate of 50%.

6 To set up a Community Fund and to contribute £52,000 per annum. The Community Fund shall be used for specific purposes as defined in the Section 106 Agreement to be similar to those used for the Landfill Tax Credit Scheme and will be managed by the Developer and the Council who shall jointly consult with the Local Liaison Committee on the application of the funds.

7 To make the Visitors Centre within the EfW CHP facility available for reasonable local community use for the operational life of the project.

8 To create a dedicated web site for the Development, such web site to include Specified Information to be defined in the Section 106 Agreement but including at least monitoring data on the emissions from the Development.

9 To ensure that the already established Local Liaison Committee will continue to exist and shall consist of a maximum of 15 members from within 5 miles of the Development site and will meet on a regular basis to discuss site operations and agree apportionments of the Community Fund for specific projects.

10 Subject to the approval of the MoD, within 6 months of the opening of the EfW CHP facility to dedicate the Open Green Space adjacent to Savage Road to the Council or other body for use as an amenity area by the public and to provide a commuted sum for the maintenance of the Open Green Space.

11 To implement, and maintain for the life of the Development a woodland management scheme to enhance Blackies Wood and land adjoining Weston Mill Creek with managed public access.

12 To remove marine litter from Weston Mill Creek and to enhance its appearance and to monitoring water quality by funding the management of the existing water quality buoy (just off Weston Mill Lake).

13 To make an appropriate financial contribution towards the cost of any works considered necessary to improve the Weston Mill Drive and Carlton Terrace junction (subject to specified limitations to the contribution amount and to be contributed only when the Weston Mill Local centre is developed and if a junction improvement at Weston Mill Drive / Carlton Terrace is a requirement of that development.

14 To make a contribution to road safety and road noise reduction schemes within 0.5 km of the site provided that the contribution does not exceed £[50,000] and that the schemes are carried out within 5 years of the commencement of the permitted development.

15 To implement and maintain a Travel Plan for the Development which shall include measures to promote sustainable travel to and from the Development including the provision of a cycle shed and showers on the Site; a cycle track along the site access road as far as the connection to the junction with the MoD access road to the Camel's Head Gate and setting up a car sharing club; and providing subsidised bus season tickets for employees from the Plymouth area.

16 To pay for reasonable modifications including dropped curbs and disabled crossing to the Wolseley Road/Camel's Head Gate junction to improve pedestrian access and enable employees to walk to work up to a specified cost limit.

17 In the event that agreement with relevant landowners can be secured, the Developer shall provide funding (up to a specified limited amount) to be used for appropriate planting of vegetation and trees to be provided on specified sites as agreed between the Developer and the Council to further mitigate and improve the view of the EfW CHP facility from various locations.

18 To carry out monitoring of noise levels at specified nearby receptors to be agreed between the Developer and the Council during the construction period and for the first year of the operation of the EfW CHP facility and to compare the actual contribution of that noise to the predicted contributions, and if the actual noise exceeds the maximum allowed increases in noise levels as are specified in any relevant planning condition to take appropriate measures to reduce the impact on those receptors to the specified maximum allowed increases.

4 The Application Site

4.1 Description of the Application Site

4.1.1 This section should be read in conjunction with planning application plans PA01 to PA04 and Environmental Statement Figures 4.1, 4.2, 4.3.1 and 4.3.2 which show the site location, land designations, and site photographs.

4.1.2 The planning application site covers an area of approximately 13.07 hectares and the main development site and access road, is located in the northern section of Her Majesty's Naval Base (HMNB), Devonport, Plymouth. It is in the ownership of the Ministry of Defence (MoD) and will be leased by the MoD to MVV for the EfW CHP facility.

4.1.3 The main part of the site, where the EfW CHP Facility will be located, is mainly previously developed land, comprising generally level, open and un-vegetated made ground. The planning application site also includes areas of land to be used for a site access road, a temporary construction compound area, and for the installation of new and refurbishment of existing, steam and electricity infrastructure, together with existing woodland and open space which will be enhanced and positively managed.

4.1.4 Planning application plans PA02 and PA05 show the layout of the application site and Environmental Statement Figure 4.3.1 illustrates the component parts of the site. The planning application boundary includes the following areas.

1. Approximately 2.47ha of predominantly made ground which is the site of the proposed EfW CHP building, air-cooled condenser, workshop and stores building, car-parking and other associated infrastructure.

2. An area to the south of the main EfW CHP facility, to be used as the main construction compound. This area comprises made ground, of about 1.72ha, which is known colloquially by the MoD as 'Table Top Mountain' and is used by the MoD for storage of equipment and will be returned for use by the MoD on completion of construction.

3. Blackies Wood and an area of green-space, of about 4.15ha, to the north and west of the main EfW CHP facility site.

4. The site access road, including weighbridge and new bridge across Weston Mill Stream, (covering about 1.74ha in total) running broadly east-west from the Camel's Head junction of Weston Mill Drive and Wolseley Road.

5. An area of about 0.29ha for a new Bull Point access road.

6. Electrical power from the facility will be exported via a direct connection into the Devonport Dockyard electrical distribution system by means of a connection to the North Intake 33/11 kV substation, located within Goschen Yard. The route of the new cable required between

the EfW CHP facility and the North Intake substation is shown on Environmental Statement Figure 6.6 and is included within the planning application boundary, shown on planning application plan PA02. The total connection distance is approximately 1,180 m. The majority of this distance falls within land owned by the MoD, except where new cables will be required to pass beneath Saltash Road through some existing but redundant pipes which will be re-used as ducts, to access the North Intake substation.

7. New steam and condensate pipework will be installed to connect to the existing system; some of the existing pipework will need to be replaced. A drawing showing the route of the pipe connections and replacement pipework can be seen at Environmental Statement Figure 6.7 and is also included within the planning application boundary, shown on planning application plan PA02. The total pipework distance is approximately 1,560 m, all of which falls within land owned by the MoD. The areas of the electrical distribution system and new steam and condensate paperwork within the site will be 2.45 ha.

8. An electricity cable connection will also be required during the construction period, with the connection area covering an area of 0.25 ha within the red line planning application boundary.

4.1.5 The central part of the site on which the EfW CHP facility building will be constructed was until recently used by a firm called Ashcroft to process demolition rubble created from different construction projects throughout the naval base and dockyard. The ground surface predominantly comprises compacted rubble and there remain on site some mounds of rubble.

4.2 Description of the Surrounding Area

4.2.1 The site lies within the St. Budeaux Ward and Barne Barton Neighbourhood of Plymouth City, north-west of the city centre, close to the Keyham and Kings Tamerton and Weston Mill city Neighbourhoods. The communities of Saltash and Torpoint, in the county of Cornwall, lie to the west of the site, on the western banks of the Hamoaze / River Tamar.

4.2.2 Access to the site is from the Camel's Head junction of the A3064 Weston Mill Drive and Wolseley Road, through parts of HMNB Devonport. A tarmac access road crosses Weston Mill Creek at two points to access the central part of the site.

4.2.3 To the north and north-west of the application site boundary site lies the residential area of Barne Barton, the closest streets being Talbot Gardens, Savage Road and Poole Park Road. This area of housing is at a higher elevation than the site. A number of these properties are flats arranged over several storeys.

4.2.4 There are further residential properties to the east, north east and south east of the site at Weston Mill, St. Budeaux, King's Tamerton, Camel's Head, North Prospect and Keyham, as well as further afield in Saltash to the north-west, Wilcove to the west and Torpoint to the south-west. Weston Mill Community Primary School is located at Camel's Head to the east of the site.

4.2.5 To the west of the southern part of the application site (Table Top Mountain) is a car park, part of which is shortly to be the subject of a planning application for the Devonport Landing Craft Collocation Project (DLCCP). To the south of Table Top Mountain lies the tidal Weston Mill Lake.

4.2.6 Located to the south east of the site (south of the access road) is the Devonport Distribution Facility (DDF) which stands approximately 8m high and is bordered to the north and south by large areas of tarmac used as loading bays and service yards.

4.2.7 The Weston Mill Viaduct is located to the east of the site, which forms a bridge carrying the railway line over the nearby entrance to HMNB Devonport.

4.2.8 The site is located at the western end of Weston Mill Drive. Weston Mill Drive is a Principal Road and provides the highway link between HMNB Devonport / Devonport dockyard and the trunk road network (A38). The A38 is situated approximately 1.5km to the northeast of the site.

4.2.9 The site is approximately 500m east of the Plymouth Sound and Estuaries Special Area of Conservation (SAC) at its closest point. The Tamar Estuaries Complex Special Protection Area (SPA) and Tamar-Tavy estuary Site of Special Scientific Interest (SSSI) are located approximately 2km to the north-west of the site.

4.2.10 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 River Tamar.

4.2.11 The Grade II Listed 'Mixing House' is located approximately 300m to the west of the site. A Scheduled Ancient Monument (SAM) is located at Bull Point, 1km to the northwest of the site. There are a number of Grade II Listed Buildings within the HMS Drake Fleet Accommodation Centre complex to the south, on the southern side of Weston Mill Lake.

4.3 Potential Future Developments

4.3.1 Other planned developments within a reasonable proximity of the proposed EfW CHP facility have been identified through discussion with Plymouth City Council (PCC) officers. Some of these developments are currently the subject of planning applications, some are the subject of pre-application discussions, and some are ideas for future proposals. A summary of the main, known potential future developments in the locality of the application site is set out below.

4.3.2 The **Help for Heroes project**, which is comprised of two elements, a disability-compliant accommodation block to the West of Drake Main Gate and a rehabilitation centre with therapeutic pool to the East of the Wyvern Sports Centre. The planning application for the accommodation block was submitted in February 2011 and granted in April 2011, with construction due to start in October 2011. Submission of the planning application for the rehabilitation centre is due in the summer of 2011. All Help for Heroes construction is due to be complete in October 2012.

4.3.3 The **Devonport Landing Craft Collocation Project (DLCCP)** planning application, to be located on land to the west of the site of the proposed EfW CHP Facility. The proposed scheme comprises a small marina, accommodation (offices and classrooms) housed within a new building in place of existing building W007, a new rock revetment at Wilson's Beach, as well as a new slipway, finger jetty, boat yard and new Engineering Facility at the western end of Weston Mill Lake. Capital dredging, and subsequent maintenance dredging, will be required at the locations of the proposed works. Wilson's Beach at the western end of Weston Mill Lake will be used more frequently for training purposes. The construction of the marina requires the existing 13 Wharf Pontoon arrangement to be reconfigured and will incorporate the recently constructed 14 Wharf Small Boat Facility. The engineering facility and boat yard will be arranged around the existing helipad safety zones and vehicle parking. Construction start is proposed for summer 2011 and approximately 16 months has been programmed for the construction period therefore aiming for project completion by winter 2012/13 (including some contingency time).

4.3.4 A **Naval Base Helicopter landing site** is already located to the North West of Weston Mill Lake, which is used by both military and Flag Officer Sea Training sponsored civilian helicopters. The civilian contracted helicopters are based and maintained at Plymouth City Airport. Whilst there is no current intention to change the number of flights in the Naval Base, it is understood that the future of Plymouth City Airport is under review and the outcome has the potential to affect the Naval Base helicopter flights. It is understood therefore that increased helicopter movements have been the subject of pre-application discussion with Plymouth City Council's Development Management Department and Public Protection Service.

4.3.5 The **Weston Mill District Centre**, allocated in Plymouth's Local Development Framework Core Strategy (Strategic Objective 7(5)), to be delivered by 2016. At the time of writing, early pre-application discussions had been held between Plymouth City Council's Development Management Department and a developer, whose intention it is to develop a 2,600 m2 retail unit.

4.3.6 A **Park and Ride facility at Coombe Park Farm**, near to the St Budeaux bypass / A38 interchange, mooted in Plymouth's Sustainable Communities Development Plan Document which was the subject of consultation during early 2011.

4.3.7 The **MoD Submarine Dismantling Project,** the purpose of which is to develop a solution for the disposal of the UK's nuclear submarines after they have left service with the Royal Navy. This MoD project extends over a 60 year period and includes the provision of facilities to dismantle 27 defuelled nuclear submarines of past and current classes. In the current phase of the project, the MoD is seeking to identify how best to dismantle the submarines; where best to dismantle them; where best to store the Intermediate Level Radioactive Waste; and how it will work with industry to achieve the aims of the project. None of these decisions will be taken until after the MoD has completed a public consultation and Strategic Environmental Assessment, both occurring in 2011. Devonport is a candidate site for submarine dismantling.

4.4 Planning History

4.4.1 The main relevant planning history of the application site and North Yard part of Devonport Dockyard is summarised in Tables 4.1 and 4.2. Figure PASS1 shows the approximate location of these planning permissions.

Table 4.1. Planning permissions within the main development site area.

Fig. PASS1 Id No.	Application Number	Applicant	Site	Brief Description	Decision made
1	93/00669/C1884	Ministry of Defence Land Agent	Land R/O HMS DRAKE 241 Saltash Road, Plymouth	Formation of temporary car park (circular 18/84 consultation).	29/07/1993 granted with conditions
Not mapped	94/00134/C1884	Ministry Of Defence, Land Agent	HMNB Devonport, Saltash Road, Plymouth	Construction and improvement of stream crossing, Weston Mill Lake	5th July 1994 permitted (no objection)
2	99/0989	Devonport Management Ltd (DML)	Weston Mill, Area 2 and 3	Tipping and filling of land to provide utility area for storage and occasional vehicle parking	Permitted 20th October 1999
3	00/00997	Devonport Management Ltd (DML)	Weston Mill, Area 4	Tipping and filling of land to provide utility area for storage and vehicle parking	Permitted 16th October 2000
4	00/00896/FUL	Devonport Management Ltd (DML)	HMNB Devonport, Saltash Road, Plymouth	Tipping and filling of land to provide utility area for storage and occasional vehicle parking for naval base (extension to previously approved area to include part of former car crime prevention project	Withdrawn 15th August 2000
Not mapped	04/01209/C1884	Defence Estates	HMNB Devonport, Saltash Road, Plymouth	Retention of multi CCTV system on landward/seaward perimeters of Dockyard and Naval Base (Circular 18/84 application)	20th December 2004 permitted (no objection)
5	04/01703	Interserve Project Services	HMNB Devonport, Saltash Road, Plymouth	Temporary use of part of land north of Weston Mill Lake for storage and crushing of excavated and demolition material	Permitted 9th December 2004
6	04/01974	Devonport Management Ltd (DML)	Weston Mill	Temporary use of land at Weston Mill for storage of materials and plant sorting of demolition materials and erection of concrete crushing plant	Permitted with conditions 30th December 2004

Fig. PASS1 Id No.	Application Number	Applicant	Site	Brief Description	Decision made
Not mapped	10/01010/ESR10	MVV	North Yard	EIA Scoping Opinion for the EfW CHP facility	28th July 2010

Table 4.2. Planning permissions within the wider Devonport Dockyard, North Yard

Fig. PASS1 Id No.	Application Number	Applicant	Site	Brief description	Decision made
1	88/01522/C1884	Property Services Agency	HMNB Devonport, Saltash Road, Plymouth	Weston Mill Lake erection of Building for the storage of radioactive waste together with surrounding hardstanding and perimeter fences. (Circular 18/84 CONS.).	Refused 27th Oct 1988
1	88/01521/C1884	Property Services Agency	HMNB Devonport, Saltash Road, Plymouth	Weston Mill Lake temporary earthworks to consolidate ground for future development, the provision of drainage and the diversion of services (CIRC.18/84 CONS.).	Refused 27th Oct 1988
2	84/03039/C1884	Property Services Agency	HMNB Devonport, Saltash Road, Plymouth	HM Naval Base Keyham Road Plymouth erection of two storey industrial building (circular 7/77 notification).	Granted with conditions 7th Sept 1984
3	89/03234/OUT	Devonport Management Ltd (DML)	HMNB Devonport, Saltash Road, Plymouth	H.M. Dockyard north yard outline application to develop land by construction of ship personnel accomm. &/or mooring of accommodation vessel.	Granted with Conditions 30th Nov 1989
4	94/00255/CLTN	Ministry Of Defence, Defence Land Agent	HMNB Devonport, Saltash Road, Plymouth	Sewage collection and treatment scheme, Weston Mill Lake	Application withdrawn 14th July 1995
5	94/01067/CLTN	Ministry Of Defence, Defence Land Agent	HMNB Devonport, Saltash Road, Plymouth	Provision of ship to shore sewage collection and treatment facility, Weston Mill Lake	15th Sept 1994
6	94/01222/FUL	Devonport Management Ltd. (DML) on behalf of Ministry Of Defence	HMNB Devonport, Area surrounding Basin 5	Modernisation and Enhancement of Nuclear Submarine Support Facilities	Granted with conditions 29th February 1995
7	98/01458/FUL	Devonport Royal Dockyard, Mr.S.Urquhart	HMNB Devonport, Area surrounding Basin 5	Revised proposals for Modernisation and Enhancement of Nuclear Submarine Support Facilities	Granted with Conditions 8th April 1999

Fig. PASS1 Id No.	Application Number	Applicant	Site	Brief description	Decision made
8	06/01108/FUL	Serco defence and aerospace	HMNB Devonport, Weston Mill, PL2 2BG	Construction of temporary car park.	Permission granted with conditions 15th September 2006
9	07/00034/FUL	Serco defence and aerospace	HMNB Devonport, Weston Mill, PL2 2BG	Construction of new teaching facility within the naval base.	Permission granted with conditions 5th April 2007

4.4.2 In addition to planning permissions affecting the site, there are a number of known pre-application enquiries for developments on nearby areas, as described in Section 4.3.

5 Details of the Proposed Development

5.1 Introduction

5.1.1 The following section provides a description of the proposed development of an Energy from Waste Combined Heat and Power (EfW CHP) facility at North Yard, Devonport. This description is an extended summary of Chapter 6 of the Environmental Statement and should be read in conjunction with the planning application plans PA01-PA23.

5.1.2 The primary purpose of the EfW CHP facility is to treat the waste from the southwest Devon area that has not been recycled, reused or composted. The facility will therefore primarily deal with Municipal Solid Waste (MSW) provided by the SWDWP Authorities under the SWDWP contract. The remaining processing capacity will be used to process similar Commercial and Industrial (C&I) waste from local businesses in the surrounding area.

5.1.3 The EfW CHP facility is designed to treat 245,000 tonnes of waste per annum at the thermal design point of 82.1 Megawatts thermal (MWth) (hourly throughput of 31.1 tonnes per hour (tph) with a Calorific Value (CV) of 9.5 Megajoules per kilogram (MJ/kg) and an availability of 90% (equal to 7,884 full load operational hours per year). Under low CV and high availability conditions the mechanical throughput could be as high as 265,000 tonnes of waste per annum. It is important to state that the Environmental Statement assesses the worst-case scenario in terms of tonnage, specifically the vehicle movements in the transport assessment (ES Chapter 12) and the air quality and noise assessments which use these data (ES Chapters 13 and 14 respectively).

5.1.4 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 Her Majesty's Naval Base (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. The EfW CHP Facility will therefore incorporate Combined Heat and Power (CHP) technology.

5.1.5 Solid residues will be left in the form of bottom ash, which will be transported off site and recycled, and residues from the air pollution control system, which will require disposal off site at a licensed hazardous waste landfill.

5.1.6 Plans of the proposed EfW CHP facility main building are provided in planning application plans PA06-PA08 and details of the other components of the EfW CHP facility are shown on the planning application plans generally. The facility will comprise the following principal components:

- The EfW CHP facility will comprise the following principal components:
- Tipping hall;

- Waste bunker hall;
- Bale store;
- Turbine / boiler house;
- Air pollution control system, including 95m high chimney;
- Bottom ash collection area;
- Air cooled condensers;
- Water treatment plant;
- Central control room;
- Administration block;
- Workshop and stores building;
- Transformer compound for the export of electricity from the facility;
- Emergency diesel generator enclosure; and
- Electricity cables, switchgear building and steam and condensate pipework for connection to the relevant networks.

5.1.7 In addition to these principal components, there will also be access roads and trafficked areas for operational purposes; replacement of two existing crossings of Weston Mill Stream with a new clear-span bridge; weighbridges and a gatehouse; drainage and connections to infrastructure; hard and soft landscaping and an ecological mitigation area.

5.1.8 The footprint of the main building itself will cover approximately 6,200m² and together with small auxiliary buildings and equipment approximately 9,000m². The process equipment layout is optimised to give as compact a footprint as possible. This also helps to deliver clean simple lines to the buildings.

5.1.9 As well as the operational plant delivering the service requirements of the SWDWP contract, facilities will be provided for use by the public, including a visitor centre incorporating space for community use, roof terracing and exhibition space, with views over operational areas of the Facility and over the wider Dockyard area and access to Blackies Wood biodiversity resource and viewpoints over Weston Mill Creek. The intention is to provide a valued community and education resource. Access to the community facilities will be controlled and bookable via the Community Liaison Officer.

Waste collection

5.1.10 Table 5.1 identifies the current waste collection arrangements for each of the SWDWP authorities, and the changes to those arrangements that will arise once the EfW CHP is operational.

Table 5.1 Waste Collection Arrangements

Authority	Current Arrangements	Changes to arrangements arising from use of EfW CHP facility
Plymouth	Residual MSW taken to the Chelson Meadow Refuse Transfer Station (RTS), bulked up and transported for disposal to Lean Quarry landfill site in Cornwall. Street sweepings, fly-tipped waste, bulky waste and litter delivered to Prince Rock Transfer Station, bulked up and transported for disposal at Lean Quarry.	Refuse Collection Vehicles (RCV) containing residual MSW will deliver straight to the EfW CHP facility. Residual MSW arising from the Chelson Meadow Materials Recovery Facility and Civic Amenity site and the Weston Mill Civic Amenity site will be bulked up and directly transported for disposal at the EfW CHP facility. Street sweepings, fly-tipped waste, bulky waste and litter delivered to the Prince Rock Transfer Station, bulked up and transported for disposal at the EfW CHP facility. Chelson Meadow RTS will no longer be required for bulking waste. Two potential alternative uses have been identified: a new MRF in the RTS to replace the existing MRF which is nearing the end of its operational life, or lease to private sector company to bulk up commercial and industrial waste.
Devon – South Hams	Residual MSW taken to Waste Transfer Stations (WTS) at Paignton or Kingsbridge, bulked up and transported for disposal at Heathfield landfill site near Newton Abbot, or RTS at Chelson Meadow, bulked up and transported for disposal at the Lean Quarry landfill.	Some of the residual MSW will continue to be taken to the Paignton and Kingsbridge WTSs, bulked up and taken to EfW CHP facility. For areas of South Hams in proximity to Plymouth, RCV will deliver directly to the EfW CHP facility.

Devon – West Devon	Residual MSW taken to WTS at Crowndale in Tavistock, bulked up and transported for disposal at Lean Quarry landfill.	Residual MSW collected in West Devon will continue to be taken to WTS at Crowndale in Tavistock, bulked up and transported for disposal at the EfW CHP facility.
Devon – Teignbridge	Residual MSW taken direct to Heathfield landfill.	Residual MSW taken to new WTS to be constructed – most likely at Heathfield near Newton Abbot, bulked up and transported to the EfW CHP facility.
Torbay	Residual MSW taken to Paignton WTS, bulked up and transported for disposal at Heathfield landfill.	Residual waste bulked up at the Paignton WTS, transported to the EfW CHP facility.

5.2 EfW CHP Facility Process

5.2.1 A full description of the waste treatment process is provided in Chapter 6 of the Environmental Statement. Data on the projected amounts of inputs and outputs can be found in the Waste Flow Model, Appendix 6.2 of the Environmental Statement.

Waste Delivery

5.2.2 Waste will be delivered to the Energy from Waste facility in enclosed Refuse Collection Vehicles, Roll-on/Roll-off vehicles with enclosed containers, and sheeted or enclosed bulk transfer vehicles and unloaded in an enclosed Tipping Hall. The Tipping Hall will have rapid closing doors and a negative air pressure system to ensure that all odours are contained within the building and treated so that they do not give rise to nuisance.

Waste Combustion

5.2.3 Waste will be fed from the waste bunker into the furnace using a grab crane. The crane operator will mix the waste to maximise homogeneity and calorific value, and to identify and remove any items that should not have been disposed of at this facility, e.g. used butane gas canisters. These will be stored in a skip within the tipping hall for appropriate disposal off site. The EfW CHP facility is designed to safely combust such items should they inadvertently be fed into the furnace.

5.2.4 The combustion technology will incorporate an inclined reciprocating grate. Ash generated from combustion will drop off the end of the grate directly into a water bath equipped with a mechanical ash discharge conveyor. Combustion air will be taken from the Tipping Hall and fed into the combustion chamber.

5.2.5 Combustion gases will pass into a secondary combustion chamber. The chamber is sized so that the products of combustion, after the injection of secondary air, remain at a temperature of at least 850°C for a minimum of two seconds. This is to ensure the efficient destruction of organic compounds and carbon monoxide. In the unlikely event that the temperature arising from the combustion of the waste on its own is not sufficient (e.g. when burning very low calorific value waste) the auxiliary burners are used to maintain this temperature. In addition flue gas will be circulated from behind the fabric filter into the firing chamber in order to enhance the incineration process and lower the formation of oxides of nitrogen (NOx).

5.2.6 The waste feed rate, the supply of primary and secondary combustion air and the grate speed will be regulated by an advanced combustion control system which measures flow rate, flue gas oxygen and combustion temperature and controls the plant to keep the rate of steam generation constant. This ensures that:

- The boiler and generator operate at their optimal efficiency; and
- Over firing of the boiler with the consequent increase in thermal stress and corrosion as well as the risk of increased CO emissions is avoided.

5.2.7 The amount of heat released by the waste will vary according to its net calorific value (NCV). The automatic control system will respond to this variation by modifying the waste feed rate and the grate speed to maintain a constant heat release from combustion and hence a constant steam flow rate.

5.2.8 In addition to conventional combustion control (e.g. with temperature sensors) an infrared camera will be provided to record and control the fire location and the burnout on the grate.

5.2.9 The combustion process generates oxides of nitrogen (NOx). In order not to exceed the emission limit for these substances, the secondary combustion chamber will be equipped with a NOx reduction system which will inject urea solution into the secondary combustion chamber of the furnace.

5.2.10 Urea acts as a reducing agent which decomposes during injection in the hot flue gas stream, primarily to ammonia. The hydrogen in the ammonia reacts with the oxygen in the oxides of nitrogen to produce molecules of water vapour and nitrogen. This is a selective non catalytic reduction process (SNCR), which is optimised at temperatures of between 850°C and 1,000°C.

Steam Generation

5.2.11 High pressure (60 bar) and temperature (420˚C) steam will be created by the evaporation of the water and the saturated steam will be further heated in the super-heaters.

5.2.12 The combustion gases will cool rapidly, maintaining heat transfer efficiency, minimising erosion and also minimising the presence of ash deposits on the tubes. The economiser sections will reduce the gas exit temperature to the optimum required for the flue gas treatment process and

preheat the boiler water for increased efficiency. The rapid cooling coupled with minimal ash deposits will help minimise the reformation of dioxins and furans.

Air Pollution Control

5.2.13 The process will use a dry APC system using sodium bicarbonate, which will be delivered in sealed bulk powder carriers which are pneumatically loaded and emptied.

5.2.14 Acid pollutants HCl, SO_2 and HF will be removed by a dry scrubbing and filtration system, using sodium bicarbonate as the reagent, to enable more energy to be recovered from the flue gas. A controlled amount of powdered activated lignite carbon will also be injected into the flue gas upstream of the fabric filter.

5.2.15 The flue gases will pass through the fabric filter in which the entrained particles are trapped in the filter cake which covers the filter bags. The neutralisation reaction will be completed as the flue gases pass through the filter cake. The filter cake will be removed at regular intervals by reverse air pulses and fall into the filter discharge hoppers. A proportion of this residue will be re-circulated into the flue gas duct upstream of the fabric filter. This increases the neutralisation reaction efficiency, thereby reducing the final quantity of un-reacted sodium bicarbonate in the APC residue. The SO_2 and HCl concentrations at the boiler outlet and at the emission monitoring points in the chimney will be continuously monitored and the quantity of sodium bicarbonate injected will be adjusted, in accordance with the difference in the concentrations of the acid gases at the two measurement points, to achieve the permitted emission limits.

5.2.16 The primary method of minimising the release of dioxins will be by careful control of the combustion conditions. The gas residence times and the temperatures in the combustion system are such that dioxins / furans are efficiently destroyed.

5.2.17 For additional removal of dioxins and furans an activated lignite coke injection system will be used. The activated lignite coke adsorbs mercury, and organic compounds including dioxins and furans. Other heavy metals such as copper and cadmium are filtered out as particulates by the fabric filter.

The Fabric Filter

5.2.18 The filter bags act as a foundation for the formation of a filter cake which serves as a reaction medium for both the acid gas neutralisation and the adsorption of heavy metals and organic compounds and provides particulate filtration. The filter cake will be periodically removed from the bags by the automatic cleaning.

Turbine Generator and Air Cooled Condenser (ACC)

5.2.19 The superheated steam from the boiler will be expanded in a steam turbine. The expansion of the steam will deliver energy in the form of shaft power which, in turn, will be used to drive an electrical generator. Provision will be made in the design of the steam turbine for steam extraction to the existing Dockyard network.

5.2.20 The Facility will use a finned-tube air-cooled condenser (ACC) to condense the exhaust steam from the steam turbine. In the ACC the steam will be condensed under vacuum to extract the maximum practical mechanical energy from the expansion in the steam turbine.

5.2.21 The ACC will consist of several sections as follows:

- Tube bundles in carbon steel with aluminium fins;
- A cooling fan system including adjustable blade pitch, frequency regulated electric motors, and direct drive reduction gear;
- Screening of the air intake and exit openings to reduce visual impact; and
- A steel support structure.

Emissions to Water

5.2.22 In normal operation, the plant will produce no liquid effluent. Clean water such as boiler blowdown water or backwash water from the boiler water treatment plant will be returned to the ash quench water seal system on the boiler. Dirty water such as the run-off from the IBA conveying system will be returned to the ash quench system. There are no emissions to water arising from the baling process.

IBA

5.2.23 The IBA remaining after combustion equates to approximately 24% by weight of the input waste, this equates to approximately 58,800 tpa assuming a total waste throughput of 245,000 tpa.

5.2.24 IBA including metals will be discharged from the end of the combustion grate directly into the ash quench bath. From there, the ash will be transferred by means of an ash extraction conveyor into the ash bunker, which has a storage capacity of eight days (1,540m3). The bunker will have a sloping floor so that surplus quench water runs back into a collection sump and can be returned to the quench bath from time to time. The ash retains approximately 20% by weight of the water from the quench bath.

5.2.25 The bottom ash will be loaded by means of an automatic travelling overhead grab crane into a collection vehicle. The vehicle will be sheeted before leaving the ash loading station.

Metals

5.2.26 MVV will recover both ferrous and non-ferrous metals from the IBA. The levels of ferrous and non-ferrous metals remaining in the IBA is a function of the input waste composition which is in turn is largely dependent on the levels of recycling achieved by Waste Collection Authorities and commercial and industrial waste collectors. Metals might typically represent approximately 3.5%, by weight, of the IBA.

APC Residues

5.2.27 The residue from the bag filter, which contains fly ash, the reaction products from the acid gas neutralisation process and activated lignite with the absorbed metals and organic compounds, is considered hazardous waste. The main reason for these residues being classed as 'hazardous' is their alkalinity. The APC residues are not dissimilar to powdered concrete in this respect, which is routinely transported by road in the same type of vehicles as would transport the APC residues.

5.2.28 The typical chemical content of the APC residues is detailed in Table 6.1 of the Environmental Statement. The residue will be conveyed from the filter hoppers to an intermediate storage silo. Part of the residue will be returned to the sodium bicarbonate dosing system to improve the utilisation of sodium bicarbonate.

5.2.29 The balance is conveyed to one of two closed residue storage silos. Each silo will have a capacity of 185m^3 which allows a total of ten days' storage. The residues have a very low moisture content. The silo is vented through a bag filter to ensure there are no fugitive emissions from the system.

5.2.30 The APC residues amount to approximately 3.5 per cent of the total waste by volume, which equates to approximately 8,575 tonnes annually assuming a total waste throughput of 245,000 tpa.

Electricity

5.2.31 On average approximately 25 MW of electricity is generated by the steam turbine, of which 2.5 MW is consumed by the plant as the parasitic load, leaving 22.5 MW as the net electrical output for export to Devonport Dockyard, HMNB and Western Power Distribution. A drawing showing the route of the cable connections can be seen at Figure 6.6 of the Environmental Statement.

Steam

5.2.32 On average approximately 23.3 MW of steam will be exported to Devonport Dockyard for use within all buildings in the North Yard and to the Fleet Accommodation Centre. New pipework will be installed to connect to the existing heat distribution system and some existing pipework

will need to be replaced. The pipes comprise a larger diameter pipe to carry the steam to its destination and a smaller diameter pipe to carry the condensate back to the boiler. A drawing showing the route of the pipe connections and replacement pipework can be seen at Figure 6.6 of the Environmental Statement.

5.2.33 The steam provided will displace steam generated by the existing North Yard boilers which run on natural gas and, occasionally in times of gas disruption, distillate oil. They 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. Additionally it will also supply to the Fleet Accommodation Centre (FAC) with heat replacing the use of natural gas in this facility. The heat demand of the FAC is throughout the whole year with the peak demand in the winter heating season. Additionally, MVV has held extensive discussions with the MoD and the designers of the Devonport Landing Craft Co-Location Project and the Help For Heroes Swimming Pool and has reached agreement in principle to supply these developments with steam. When the EfW CHP facility is shut down for maintenance the North Yard boilers and the existing infrastructure in the FAC would be used to supply heat, but since most of the EfW CHP facility shutdowns will be in the summer months the use of the existing North yard boilers will be minimal.

5.3 Principal components of the proposed EfW CHP

Main Building

5.3.1 The majority of the waste treatment process will take place within the Main Building. The maximum height of this building will be 45m and the minimum height 15m. External 'ribs' will project approximately 3m above the height of the main building enclosure. The total length of the building will be 134m and the width will vary between a minimum of 30m and a maximum of 81m. Planning application drawings PA06 show the four elevations of this building and other illustrations. A section through this building, showing the internal components, can be seen at planning application drawing PA07.

5.3.2 The main boiler house building needs to be 45m high in order for the plant to meet the strict requirements of the Waste Incineration Directive (WID) to protect human health and the environment. Specifically, the secondary combustion chamber is sized so that the products of combustion remain at a temperature of at least 850°C for a minimum of two seconds after the last introduction of air to ensure the efficient destruction of organic compounds and carbon monoxide. The products of combustion rise vertically within this chamber. The height of the building is therefore dictated by the need for the secondary combustion chamber to be sufficiently tall to allow a temperature of 850°C to be maintained for two seconds.

5.3.3 The Main Building has been designed to enable the various plant items within it to be maintained and replaced as necessary through the life of the facility.

Tipping Hall

5.3.4 The Tipping Hall will be situated within the Main Building which is fully enclosed and provides a reception area for incoming vehicles delivering waste to the facility. Delivery vehicles transfer waste directly into the Waste Bunker via one of five available tipping bays.

Waste Bunker

5.3.5 Prior to being loaded into the furnace, waste will be stored and mixed within the Waste Bunker (situated within the Main Building) to maximise waste homogeneity. The waste bunker will have a storage capacity of ten days (20,000m^3).

Bale Store

5.3.6 The Bale Store (located within the Main Building) provides the infrastructure needed to manage the receiving, storing, transferring and / or diversion of waste when the facility is not available for any reason, for example during planned maintenance. The bale store operates independently of the tipping hall operations.

5.3.7 In the event of the Bale Store being required, waste will be compressed into bales measuring approximately 1.5m^3 to remove air from the waste, wrapped in strong polyethylene film and stored in this area until the plant is back in operation. The polyethylene film provides a full seal against the ingress of air and pests, and is highly resistant to cuts and tears. Under ambient conditions the waste in the bale does not biodegrade as the oxygen and moisture conditions are not at the necessary level to allow biodegradation. The bale store will have a storage capacity of 18 days (12,000m^3). Adding this to the ten days' capacity in the waste bunker makes a total storage capacity of 28 days.

Turbine / Boiler House

5.3.8 The Turbine / Boiler House will be the largest part of the Main Building. The Turbine / Boiler House is where the main incineration process will take place and will contain the furnace and boiler. A steam turbine will generate electricity from the superheated steam produced.

Air Pollution Control System

5.3.9 An Air Pollution Control (APC) system will be provided. Flue gases which have passed through the boilers will enter the APC area, where the gases will be cleaned using a dry reagent injection system before they are released into the atmosphere via the 95m tall chimney. The height of this chimney has been determined by the results of the air quality assessment (see ES Chapter 13) which has modelled the relative effectiveness of emission dispersal for a variety of possible stack heights.

5.3.10 Various reagents will be required for the APC system, including sodium bicarbonate, activated lignite carbon and urea.

5.3.11 Continuous emissions monitoring equipment will be installed and the results published on MVV's website.

5.3.12 The system includes an additional economiser unit downstream of the APC system to maximise the recovery of heat from the process.

Air Cooled Condensers

5.3.13 Air-cooled Condensers will be provided to condense the exhaust steam from the steam turbine without producing a visible plume associated with water cooled condensers. A drawing can be seen at planning application drawing PA10.

Administration Block and Community Area

5.3.14 An Administration Block will be provided as part of the main building, containing the staff welfare facilities, offices and meeting rooms, including rooms available for public use. Plans and an elevation drawing can be seen at planning application drawing PA09A-B. A roof terrace and exhibition space will be located on the roof of the Administration Block and Tipping Hall/Water Treatment Building.

Control Room

5.3.15 A control room will be provided in the waste bunker hall from which the facility will be operated and monitored.

IBA and APC Residue Transfer

5.3.16 Facilities will be provided within the Main Building for the transfer of IBA and APC residues to enclosed vehicles for subsequent transport off site.

Workshop and Stores Building

5.3.17 A stand-alone workshop and stores building will be provided at the western end of the site, primarily for the storage of equipment, chemicals, etc. The workshop will also contain one office and WC. This building will be 10m high.

Generator Transformer Compound and Emergency Diesel Generator Enclosure

5.3.18 A generator transformer compound and emergency diesel generator enclosure will be provided at the facility, outside of the main building to the west of the turbine hall.

5.4 Materials and Finishes

5.4.1 The DAS, together with the planning application drawings provide a full description of the proposed materials and finishes.

The Main Building

5.4.2 The Main Building comprises a collection of angular shapes, reflecting the technology within the building, generally in neutral materials occasionally 'punched through' by coloured elements. The neutral coloured forms have a continuous and homogenous roof/ wall composite with curved eaves. This encloses a simple clad box.

5.4.3 The Tipping Hall (contained between the Water Treatment Hall and Admin Block) is in the form of a series of rectangular and angular clad boxes. This cladding will be Kingspan Longspan in Green and Grey.

5.4.4 The majority of the roof of the Tipping Hall consists of a series of roof terraces with a central exhibition space.

5.4.5 The ends of the building are formed by the Administration Block and Water Treatment Hall. These elements are completely transparent and within the angular coloured frame of the surround sits a high quality curtain walling system (Kawneer) which makes visible the internal function of the building.

5.4.6 Architectural lighting is proposed to illuminate specific features of the structure between dusk and 23.00. This is utilised only on the façades which are mainly visible from the south east and not those facing Barne Barton.

Waste Bunker and Boiler House

5.4.7 In keeping with the overall concept of shades of grey punctured by elements of colour this part of the building is predominantly a grey cladding – Kingspan Longspan – with grey louvres at high and low level. This cladding is arranged in horizontal shades of grey to create further interest. The end walls to these elements have been formed by a standing seam aluminium roofing system (Kalzip) which is a continuous roof / wall profile without any visible means of rainwater disposal as this takes place via a secret gutter. The two shapes intersect and appear to interlock. Both buildings have exposed curved weathered steel columns which are braced horizontally with a light galvanised steel lattice – co-ordinated to the positions of the grey cladding bands.

5.4.8 The buildings are anchored by a precast concrete plinth which will have a pigment addition making it appear as local faced limestone.

Flue Gas Treatment / Bag House Filter

5.4.9 The majority of the flue gas treatment area is expressed functionally via the exposed flue gas treatment equipment. Silos pipework and ductwork are all visible.

5.4.10 The one area that has to be enclosed is the Bag House Filter, which is expressed as a blue shape with angled roof. This is formed in Trapezoidal cladding.

Air Cooled Condensers

5.4.11 The Air Cooled Condensers sit apart from the Main Building and are connected to it by overhead pipework. The condensers are clad in an opaque cladding (Kal Wall) which is top lit with coloured feature lighting which will provide a glow in the evening behind curved horizontal columns. These columns would then be silhouetted against the lighting.

5.4.12 The whole structure sits on legs to allow the passage of air underneath.

Flue

5.4.13 The flue is a simple cylindrical structure which will be formed in painted steelwork which is finished in a dark grey at the base and graduated to a light grey at the apex.

Administration Block and Community Area

5.4.14 The external treatment of the administration building (and Tipping Hall) is coloured green. A roof garden will also be created from which Devonport Dockyard can be viewed.

Workshop

5.4.15 The Workshop is a simple rectangular building clad in Kingspan Longspan flat panel cladding and incorporates a 'brown roof' for the benefit of wildlife.

5.5 Access, circulation, traffic control and parking

5.5.1 The location of the site means that the predominant highway access to the site will be from the A38 via the A3064, Weston Mill Drive, as shown on Figure 6.8 in the Environmental Statement.

5.5.2 Access will be provided to and from the proposed EfW CHP via a signalled junction. As such, vehicles entering the site travel along the MoD owned access road towards the Camel's Head Gate of Her Majesty's Naval Base (HMNB) Devonport and turn right at the signalled junction. Vehicles leaving the site will turn left at the signalled junction and join the highway network at

the aforementioned junction at Weston Mill / Wolseley Road. The existing lay-by for drivers to drop off and collect staff and visitors to the Dockyard will be retained.

5.5.3 A new road will be formed through the existing car park. Sufficient off road queuing areas will be provided to meet the peak delivery periods; queuing on the public highway will not be permitted.

5.5.4 At the western end of the car park, the new road will pass underneath the Weston Mill railway viaduct and join an existing road, prior to the weighbridges / gatehouse. This existing road will be modified to suit the line and level of the weighbridges and the new bridge over the creek (see below).

Weighbridges and Gate House

5.5.5 Weighbridges and a Gate House will be located on this internal access road. The site will be equipped with two weighbridges positioned to allow weighing in and weighing out of all waste delivery vehicles, vehicles delivering consumables and vehicles transporting products and residues.

Crossing Weston Mill Creek

5.5.6 It is proposed to demolish both existing crossings of Weston Mill Creek and replace them with a new clear-span bridge sufficient to take traffic in both directions at once. The new bridge will take the form of a two-way access composite steel and concrete bridge spanning approximately 18m. A drawing of the proposed new bridge can be seen at planning application drawing PA22.

Bull Point Access

5.5.7 There will be a need to construct a new access road to Bull Point for the MoD since its existing access road will be outside the new security fence and will be required for the EfW CHP facility. The location of this new access road can be seen at planning application drawing PA20.

HGV Traffic Control

In terms of the movement of waste vehicles, the access procedure will be as follows:

- Vehicle arrives at site and passes through gatehouse;
- Vehicle stops at weighbridge;
- Security checks are undertaken and vehicle is weighed-in;

- Vehicle proceeds on to site and is unloaded / loaded in enclosed tipping hall or relevant enclosed area;
- Vehicle returns to weighbridge and is weighed-out;
- Vehicle passes through gatehouse and exits site.
- There will be traffic lanes provided in parallel to the weighbridge lanes that will allow vehicles not requiring to be weighed to bypass the weighbridge facility. The layout is such that the weighbridge lanes will accommodate two vehicles each, without obstructing the bypass lanes.

5.5.8 Dimensions taken from the site layout plans indicate that there is a length of approximately 165m between the weighbridge and the site access junction. It is therefore estimated that approximately 13 large vehicles, or a greater number of smaller vehicles, could be accommodated within the site and any queuing within the site is therefore not expected to impact on the external highway network.

5.5.9 In the Tipping Hall vehicles will be under the control of an automated traffic light system to indicate which tipping bay to use. This will be controlled by the plant control room.

5.5.10 Operational vehicles will be controlled on site via designated truck paths, road markings, traffic lights and traffic control bollards and/or automated bollards as required. A speed limit of 10 miles per hour will be imposed and maintained across the site. This will be prominently displayed on traffic signs and enforced by the operating company.

5.5.11 Emergency vehicles will have freedom to move around the total site via the perimeter road.

5.5.12 MVV's facility will occupy a site discrete from HMNB Devonport within which it will have full security control, without disruption by or to MoD activities.

Parking Spaces and Cycle Racks

5.5.13 It is proposed that 51 car parking spaces will be provided at the EfW CHP Facility, two of which will be marked for disabled use. Five car parking spaces will be provided specifically in proximity to the gatehouse which will be for short term use by visitors who will call at the gatehouse / weighbridge to obtain access and instructions to enter the site, including details of where they can park once they are on site.

5.5.14 One coach parking space will be provided for visits to the visitor centre. The coach parking space is provided for school visits and these visits will be managed to ensure that only one coach is on site at any one time.

5.5.15 The remaining spaces will be provided within the site itself, to cater for staff and visitor requirements and 10 sheltered cycle parking spaces and 5 motorcycle will also be provided on site.

Circulation

5.5.16 The internal road and pedestrian area layout has been designed to allow the safe movement of vehicles and pedestrians and with regard to relevant health and safety legislation and good industry practice. A site layout plan can be seen at planning application plan PA05.

5.5.17 The facility has been designed such that vehicles can achieve a turnaround time, from arriving at the entrance weighbridge to leaving the exit weighbridge, of between 15 and 25 minutes (depending on the type of delivery vehicle). This time will include entering the site, being weighed, being monitored, discharging the waste, being re-weighed and leaving the site.

5.5.18 Detailed calculations have been made of the vehicle movements expected to arrive at and depart from the EfW CHP facility. These calculations can be found in ES Chapter 12, Appendix 12.1 - Transport Assessment.

Employees and Visitors

5.5.19 Car parking for staff and visitors, including disabled allocation, will be provided as shown on planning application plan PA05. The majority of the trips to and from the facility will be associated with the EfW CHP plant operation itself, with some associated staff trips. In addition, a small number of visitor trips associated with the facility and the community centre / nature reserve are also expected.

5.5.20 Visitors are most likely to be business users arriving by car and users of the community facilities, arriving by car, cycle or on foot, or school trips which will normally arrive and leave by coach or bus, outside of peak hours and on an ad hoc basis.

Numbers of Vehicles

5.5.21 The predicted average number of HGVs per day associated with the EfW CHP Facility will be 132 (264 movements) and in addition, there will be 35 private staff car visits per day (70 movements) on average. Full details of the vehicles generated by the Facility are set out in ES Chapter 12.

5.6 IBA Processing and APCr Disposal

5.6.1 The IBA will be processed at an off site facility situated at Whitecleave Quarry at Buckfastleigh, Devon, owned by Sam Gilpin Demolition Ltd. MVV will submit a planning application and construct the plant, which will be operated by Gilpin, to utilise a significant proportion of IBA as

a secondary aggregate. The treated IBA can be used in highway works, pavement concrete, landfill engineering projects, quarry restoration and brownfield remediation projects.

5.6.2 At least 95% of the output IBA (target 99%) will be reprocessed as a secondary aggregate after the extraction of ferrous and non-ferrous metals, with the remainder sent to an appropriately licensed landfill site – possibly at Heathfield or New England Quarry which are both nearby – as inactive waste attracting the inert waste landfill tax.

Alternative Locations for IBA Processing

5.6.3 In the event that IBA cannot be taken to Whitecleave Quarry, MVV will investigate other local sustainable options for the processing of IBA and there are a number of other existing facilities in the UK operated by Ballast Phoenix to which MVV could send the IBA, with planning permission and appropriate permits to operate, including:

- Beeley Woods, Sheffield, S6 1NH (Sheffield City Council – planning permission reference 08/04136/FUL);
- Castle Bromwich, Birmingham, B35 7AG (Birmingham City Council – planning permission reference N/00855/FUL); and
- Edmonton, North London, N18 3AG (has planning permission but details unknown).

5.6.4 The mechanical processing will include screening and removal of ferrous and non-ferrous metals. Metals might typically represent approximately 3.5%, by weight, of the IBA, the levels of ferrous and non-ferrous metals remaining in the IBA is a function of the input waste composition and thus the levels of recycling. Gilpin will make arrangements with metal merchants to collect and recycle the ferrous and non-ferrous metals recovered from the IBA at appropriately permitted sites, thus avoiding landfill and achieving high diversion rates.

APC Residues Disposal

5.6.5 MVV will dispose of APC residues under a contract with Waste Recycling Group (WRG). The APC residues will be transported to a facility owned by WRG in Knostrop Leeds in sealed bulk powder carriers, which are pneumatically loaded and emptied. The Knostrop Waste Treatment Facility operates under a PPC Regulations permit reference number MP3231SD. MVV's intention is to arrange for some of the APC residue loads to be transported away in bulk powder carriers which have delivered sodium bicarbonate to the facility, which would reduce vehicle movements.

5.6.6 At Knostrop, the APC residues are stored in a dedicated silo prior to being conditioned in a simple screw mixer with dilute phosphoric acid which turns soluble lead salts into insoluble salts. At this stage the APC residues are in a semi-dry state and so do not present a dust hazard.

5.6.7 Following conditioning the conditioned APC residues will be transported by WRG in covered bulk haulage lorries and be landfilled at their specialist hazardous waste landfill at Winterton, Lincolnshire, which operates under a PPC Regulations permit reference number BW1785. Here the APC residues will be put into dedicated mono-cells (i.e. cells which take only one type of waste) in the landfill which is licensed to accept hazardous waste.

5.6.8 Both sites are fully operational and already have the requisite consents to be able to cater for the additional volumes of APC residues envisaged. MVV will also investigate other local sustainable options for the disposal of APC residues.

5.7 Sustainable Design and Construction

5.7.1 The MVV facility achieves a BREEAM Pre-Assessment rating of Excellent, demonstrating its sustainable design and construction credentials. Sustainable waste management methods to be applied when dealing with the construction waste arising are set out in the Outline Site Waste Management Plan (SWMP) prepared by the contractor Kier. Further details are provided at Section 10 of this PASS.

5.8 Drainage

5.8.1 The proposed drainage strategy has been developed by GHA Livigunn. A drainage layout drawing can be found at planning application drawing PA21.

Hardstandings

5.8.2 Positive drainage will be provided to all hardstanding areas through the use of a combination of gullies, linear drains or channels and hard pipe. The surface water will pass through a class 1 by-pass petrol interceptor (estimated size at this stage NSB20 - to be confirmed at detailed design stage) prior to being discharged to the tidal estuary of the River Tamar. An outfall structure complete with adequate flow calming measures and scour protection will be provided at the point of discharge. This new outfall structure will be located within the foot print of the site, the invert level of the outfall pipe at the point of discharge will be set such that it is above the maximum tidal water level for a 1 in 200 years return period (i.e. 4.48 m AOD – note that this level already includes an allowance for climate change and a 300 mm freeboard). Consequently the design of the surface water system will be based on free discharge flow conditions.

5.8.3 It is intended to provide an emergency cut-off valve immediately upstream of the outfall such as to prevent any water discharging to the environment in the event of an accidental spill on site.

Roof and Walls

5.8.4 It is proposed to provide a drainage system to drain the run-off roof and wall rain water to an infiltration system. It is intended that the main building roof and wall surfaces will be drained to an infiltration basin whereas the workshop building, due to its size, will be drained to an infiltration trench.

5.8.5 Further information can be found in Section 6.3 of the Flood Risk Assessment, which is Appendix 11.1 of the Environmental Statement.

5.9 Landscape and Ecology

5.9.1 A comprehensive landscaping scheme has been developed, as shown in Figure 6.12 of the Environmental Statement. Full details of the proposed Landscape Strategy are provided in Section 8 of the DAS.

5.9.2 The proposals for the site incorporate the planting of native species in a landscape strategy that will provide opportunities to improve biodiversity and provide a suitable setting for the development. The landscape strategy incorporates trees towards the edge of the site, augmenting the existing tree cover where possible and helping to create a degree of connectivity between habitats. The trees would be carefully managed to avoid overhanging branches that would aid accessibility to the site and HMNB Devonport by unauthorised personnel.

5.9.3 Tree planting around the proposed site entrance will help to soften the perimeter fence and create a more interesting gateway to the development. Where possible, native species will be used. Other formal shrub planting and avenues are also proposed in the closer vicinity of the building.

5.9.4 The spaces between and round the internal site infrastructure will be planted with a species-rich grassland and the proposed attenuation pond will be created with a more irregular, organic shape and will be planted with suitable marginal and aquatic plant species.

5.9.5 An ecological mitigation area is proposed in the northern part of the site. This covers the majority of the existing 'Blackies Wood' which is identified as a Local Greenscape Area in PCC's Local Development Framework. The proposed development will include some ecological enhancement of and provision of access to this woodland.

5.9.6 There is a need to fell two trees (see the Tree Survey at Appendix 8.1 of the Environmental Statement) to accommodate the facility.

5.10 Connections to Infrastructure

5.10.1 Clean water, waste water treatment, fire systems and asset management including related maintenance and capital investment are delivered to HMNB Devonport by Kelda Water Services (KWS) under a Private Finance Initiative Contract known as Project Aquatrine. KWS is responsible for Package A of Project Aquatrine which covers all MoD sites in the Midlands, Wales and South West England. KWS has investigated and confirmed the provision of water supply and foul sewer connections as described below.

5.10.2 KWS will carry out all works necessary to provide the water and sewerage connections to the facility and will also be responsible for arranging any necessary easements required for the connections.

5.10.3 The majority of the dockyard electrical network systems with which the EfW CHP facility will interface are owned, operated and maintained by Devonport Royal Dockyard Limited. DRDL is responsible for maintaining power supplies to the operational parts of the dockyard to meet the MoD's requirements. Power supplies to the Dockyard are provided by Western Power Distribution Ltd., the Distribution Network Operator (DNO) for the area. WPD, DRDL and the MoD have all been extensively consulted in the design of the power distribution systems.

Mains Water

5.10.4 A water supply is required to provide water for the process requirements, the fire protection systems and for domestic and potable requirements. This will be supplied from the South West Water supply network via a connection to the mains in the Barne Barton area, external to the Dockyard. The route of the water supply connection pipeline is 185m. The connecting pipe will be 150mm diameter cast iron.

5.10.5 Mains cold water will be distributed around the buildings to serve all drinking water connections as close to the rising main as practicable, with connections being provided to the domestic cold water storage tanks.

5.10.6 For the provision of hot water for domestic requirements, consideration has been given to local water heating rather than centralised production and storage and a number of low water use appliances will be installed throughout the facility.

5.10.7 The average water consumption of the process during normal operation including yearly average steam extraction for CHP purposes is 4.46 m^3/h.

Foul Sewer Connection

5.10.8 The rainwater collection system from building roofs, roads and hard standings will be discharged by means of a separate surface water drainage system whilst sanitary and process wastewater will be discharged to foul sewer.

5.10.9 In normal operation there is no continuous discharge to foul sewer from the process part of the facility, as any waste water generated is reused to make up the water lost in the IBA quenching system. Therefore in normal operation the only discharge to foul sewer is from the sanitary and domestic facilities.

5.10.10 Occasionally there will be the need to discharge process water from the facility (e.g. during shutdowns or when periods of increased steam off-take with high condensate losses by the MoD leads to increased waste water from the water treatment plant) and for this purpose a neutralisation tank and water quality testing are provided with a controlled discharge to the foul sewer to ensure compliance with the requirements of the trade effluent discharge consent for the facility.

5.10.11 The foul sewer connection will be made to a rising main section of the existing internal dockyard network. The route of the foul connection is approximately 275m and will include a new 20,000 litre package pumping station.

Electricity

5.10.12 In order to start up the facility it is necessary to import electrical power from an external network. With the facility in operation electrical power will be generated at 11kV with the plant power requirement (parasitic load) being supplied via the internal power distribution system and transformers, at the required auxiliary voltage level of 400V. The plant is able to operate in island mode such that the generator provides the parasitic load requirement only without exporting power, in the event that the connection to the grid is lost. An emergency diesel generator is provided to shut down the plant safely in the event of total power loss (failure of the grid connection coinciding with failure of the turbine generator). For export, the power is transformed to 33kV by the internal feed-in transformer.

5.10.13 Technical meetings and discussions have been held jointly with Western Power Distribution (WPD), Babcock and the MoD, and the resulting feasibility studies have determined that the optimum solution is to export the electrical power via a direct connection into the Devonport Dockyard electrical distribution system by means of a connection to the North Intake 33/11 kV substation, located within Goschen Yard. With this arrangement no direct connection to the external grid is necessary. Excess generated power will be exported to the grid via the North Intake substation and the 33 kV connections to the WPD network, whilst power necessary for start up will be imported via the same connection.

5.10.14 A drawing showing the route of the cable connections can be seen at Figure 6.6 of the Environmental Statement.

5.10.15 A new switchgear building will be required adjacent to the North Intake substation. New cables will be required to pass beneath Saltash Road, through some existing but redundant pipes which will be re-used as ducts, to access the North Intake substation. New cables will need to be laid within Goschen Yard, which will require some excavation of rock.

5.10.16 WPD has carried out a formal study which confirms that this arrangement will only require minor reinforcement of the network involving the replacement of some switchgear at the Ernesettle substation.

5.10.17 The proposed architectural lighting of the Water Treatment Building and external lighting of Waste Bunker, Boiler House and air-cooled condensers will be generated by photo-voltaic cells.

Refuse Disposal and Recycling

5.10.18 General site waste, such as that generated in the Administration Block, will be collected and stored in enclosed bins or compaction units and recyclable waste will be collected and stored separately. A reputable collector will be employed to remove general refuse and recyclables from the site.

Telephone Connection

5.10.19 The facility will provided with an automatic PABX type telephone exchange and switchboard system with the requisite number of internal extensions to serve the various areas of the facility and the administration building. Separate direct lines will be installed to critical locations in the facility such as the control room and facility managers' office. The telephone line connections will be supplied from the local BT network.

5.10.20 In addition the facility will require high speed broadband internet connections for remote monitoring of process parameters and general communication requirements of the operation and management of the facility. The internet connection provider will be selected at the time of plant construction in order to ensure that the most favourable option can be secured.

Connections to Dockyard heat distribution network

5.10.21 New pipework will be installed to connect to the existing system; some of the existing pipework will need to be replaced.

5.11 EfW operation

Hours of Operation

5.11.1 Waste will be capable of being accepted during the following hours:

Monday to Friday	08:00 – 19:00
Saturdays	08:00 – 18:00

Sundays	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

5.11.2 The facility will be operational 24 hours a day 7 days a week and staff will therefore be on-site outside of the opening hours indicated above.

5.11.3 MVV recognises that there may be some occasions when the SWDWP may request that the facility accepts Contract Waste deliveries outside the normal opening hours, for example in the case of an emergency or to accommodate the delivery of Contract Waste where Authorised Vehicles have been unavoidably delayed; or in other similar circumstances. It is therefore proposed that the facility be able to accept waste outside the operating hours stated above with agreement with the Local Planning Authority.

5.11.4 Traffic will not be required to pass any MoD security checks, and will have unfettered access to the road approaching the EfW CHP facility weighbridge. It will enable MVV to accept delivery of waste even at times of heightened HMNB Devonport security, with only the publicly accessible MoD land on the approach to the Camel's Head gate being used by EfW CHP facility vehicles. A remotely operated security gate will be positioned on the new access road at the boundary with the existing HMNB Devonport car park and the road will be monitored by CCTV cameras. The gate house will be positioned on the access road immediately east of the new bridge crossing and will be occupied at all times that the EfW CHP facility is open to accept waste deliveries and vehicles on the weighbridge will be monitored by CCTV.

Employment

5.11.5 Once operational, the proposed EfW will provide employment for a total of 33 staff.

5.12 Environmental Impact Control

5.12.1 All storage, processing and treatment of waste will take place within the confines of a building with appropriate environmental controls provided. All waste, residues, products and other materials will be stored in designated on-site storage areas, bunkers or containers.

5.12.2 Waste arriving at the site will be processed in a timely fashion in accordance with the principles of Good Industry Practice. All waste being stored prior to combustion will be stored within a designated storage bunker. If there is the requirement for increased waste storage above the normal storage time, the waste baling facility can be used to bale, wrap and store the waste inside the enclosed bale store.

5.12.3 Quality and Environmental Management Systems, compliant with ISO 9001 and ISO 14001, will be implemented. As part of the Quality and Environment Management System, an Environmental Impact Control Method Statement will be developed, maintained and updated on a monthly basis. The Method Statement will include the procedures and actions required to:

- Minimise the environmental impacts of transporting, receiving, treating and disposing of Contract and Non-Contract Waste.
- Meet environmental conditions and applicable legislation.
- Minimise amenity impacts on the local population.
- Maintain the grounds and visual integrity of the building, cladding, external boundaries and fencing.
- Operate a web site on which the environmental monitoring results will be published.

5.12.4 A colour capable Closed-Circuit Television (CCTV) monitoring system will be provided to cover and record key areas including the weighbridge, queuing area, access routes, pedestrian routes, un-loading and loading areas. The system will also cover unauthorised access to the site and be operational during hours of darkness or poor lighting. Space will be provided for storing the recorded material and information for 90 days.

Light

5.12.5 Street lighting is proposed for safety and security at the entrances to the site and entrances to the building. It is proposed that the internal roadways are illuminated during the hours of darkness, when required, in the early evenings. The site will not be lit throughout the night.

5.12.6 Bollard lighting in areas of car parking will be low level directional lighting with uni-directional lamps, pointed away from hedgerows and any ecological features.

5.12.7 Lighting on the roof terrace will comprise of recessed down-lighters and only activated when the roof terrace is in use. This is to prevent unnecessary light pollution to adjacent residences.

5.12.8 Street lighting, where required, will use short light columns, where appropriate with the attachment of directional hoods to lights in order to ensure that the light is directed at an angle less than 70° and the use of low pressure sodium lamps. Movement sensors will be used where possible.

5.12.9 Cowling will be used to minimise light spillage and avoid interference with helicopter flight paths and brightness of the lighting will also be kept as low as legally possible and, as noted above, limited to periods after dusk and pre-dawn in order to provide some dark periods.

Fencing

5.12.10 A new security fence will be established such that the site and its access route falls outside of the secure area of HMNB Devonport. This new fence will be one of the first activities of the construction phase and there will be no significant presence on the site until this fence is complete and taken over by the MoD as acceptable for their ongoing security purposes. High security fencing, will be required in certain sensitive areas where the site is adjacent to the MoD land.

5.12.11 Fencing would enclose Blackie's Wood in order to manage access. Materials have been chosen to enable wildlife to pass more freely. Where existing fences are of a suitable standard and height, these will be retained.

5.12.12 A Devon hedgebank of standard stone, rubble and earth construction, is proposed along the footpath of Pool Park Road and Savage Road.

Noise

5.12.13 The plant has been designed to minimise operational noise levels as far as is practicable, including

- Selection of low noise plant items;
- Selection of wall and roof cladding constructions to minimise noise breakout from the plant buildings;
- Selection of acoustic attenuated ventilation openings to minimise noise breakout from the plant buildings.

5.12.14 Vehicle access openings will be equipped with roller shutter doors or similar. This door will normally remain open during peak delivery times; if there are long intervals expected between deliveries the door may be closed and it will normally be kept closed outside of opening hours. The door is specified as a rapid opening/closing type due to its size in order to minimise waiting time for any vehicles that do arrive when the door is closed. It will not be opened and closed between each delivery vehicle movement. The majority of traffic movements and principal external noise generating equipment (such as the air cooled condensers) are located on the eastern side of the building, away from the closest residential properties on Talbot Gardens and Savage Road. A 3 metre high acoustic barrier has been specified to the HGV route to mitigate noise of HGV traffic entering and leaving the site. The final extent of this barrier will be decided during the detailed design.

Emissions to Air

5.12.15 A comprehensive suite of controls on emissions to air will be implemented as an integral part of the design. The design of the facility incorporates Best Available Techniques (BAT) in order to comply with the requirements of WID.

5.12.16 The controls incorporated in the consented facility would include the following:

- Negative air pressure in the Tipping Hall;

- Control on combustion conditions (e.g. maintaining the flue gases above the minimum temperature specified in the Waste Incineration Directive for a sufficient time and with adequate mixing);
- Rapid cooling of the flue gases to minimise the formation of dioxins and furans;
- Injection of ammonia or urea to remove oxides of nitrogen from the flue gases;
- Injection of lime or sodium bicarbonate for control of acid gases, including SO2;
- Injection of activated carbon for control of mercury and dioxins and furans; and
- A bag filter system for removal of particulate matter.

5.12.17 The plant will be equipped with an advanced Continuous Emission Monitoring System (CEMS) which will continuously record the concentrations of oxygen, carbon monoxide, oxides of nitrogen, volatile organic compounds, particles, hydrogen chloride and sulphur dioxide.

5.12.18 Flue gas flow-rate and moisture content will also be measured to enable the mass flow of flue gases to be calculated and all measurements to be corrected to the standard reference conditions. The CEMS will be controlled by a computer system which will analyse and store the emission data and enable the data to be reproduced and analysed in accordance with the reporting requirements contained in the Environmental Permit.

Odour

5.12.19 All waste will be tipped from vehicles in a designated reception and tipping hall which will be maintained under negative pressure to prevent fugitive emissions. Vehicle access openings will be equipped with roller shutter doors or similar which will be closed when not in use. Odour emissions from the bunker will be prevented by a double lock door system, each tipping bay inside the tipping hall and the tipping hall itself being equipped with roller shutter doors.

5.12.20 Odour will be further controlled by drawing the combustion air required by the combustion plant from the waste bunker, bale store and IBA bunker areas. During plant shut down the air is extracted from the waste bunker and bale store by a separate exhaust system and treated by a combined dust filter and activated carbon filter which is located in the boiler house.

5.12.21 MVV will develop and implement an Odour Management Plan to ensure that odours are appropriately controlled. Regular inspections and sniff tests around the perimeter and operational area of the site will be undertaken to establish whether odours are being produced and/or carried off the site. Results of odour assessments will be recorded as soon as they have been completed and by the person who completed them. These records will be available for inspection by the relevant authorities.

Dust

5.12.22 There will be a negative air pressure in the Main Building and any dust laden air will be filtered to remove dust prior to discharge from the building.

Vermin and Other Pests

5.12.23 The facility has been designed, and will be maintained, such that vermin, seagulls, flies, etc will not find the facility an attractive environment.

5.12.24 Since waste within the waste bunker will be continuously mixed and agitated the conditions will not be attractive to vermin.

Litter

5.12.25 The site will be kept in a clean and tidy manner both internally and externally. Litter and detritus will be cleared up on a daily basis with particular emphasis on public areas. Any litter escaping the site or deposited by site users will be cleared up to a 10m distance from the site boundaries.

Traffic

5.12.26 Dispersion modelling has been used to quantify the magnitude of the impacts at receptors, of emissions from operational road traffic and is reported at Chapter 13 of the Environmental Statement. The assessment has demonstrated that these impacts do not represent a significant effect on air quality sensitive receptors. Taking into account available information on background concentrations within the modelled domain, predicted operational concentrations of the modelled pollutants would be within the assessment criteria for the protection of human health.

Water and Drainage

5.12.27 In normal operation there is no continuous discharge to foul sewer from the process part of the facility, as any waste water generated is reused to make up the water lost in the IBA quenching system. Therefore in normal operation the only discharge to foul sewer is from the sanitary and domestic facilities. The rainwater collection system from building roofs, roads and hard standings will be discharged by means of a separate surface water drainage system.

5.12.28 Occasionally there will be the need to discharge process water from the facility (e.g. during shutdowns or when periods of increased steam off-take with high condensate losses by the MoD leads to increased waste water from the water treatment plant) and for this purpose a neutralisation tank and water quality testing are provided with a controlled discharge to the foul sewer to ensure compliance with the requirements of the trade effluent discharge consent for the facility.

Spillages

5.12.29 To prevent spillages, the facility will be constructed and operated in accordance with the Pollution Prevention Guidelines and will be licensed by the Environment Agency (EA) under the Environmental Permitting regime. All bulk storage tanks will be appropriately bunded and located on areas of hard standing and all wastes (including wastes to be delivered to the proposed EfW CHP facility) will be stored appropriately within the building. All tanks, bunds, drains and hard standing will be inspected frequently for damage, maintained and remedial works conducted if necessary.

Hazardous Substances

5.12.30 Residues from the APC system are strongly alkaline and require disposal off site at a licensed hazardous waste landfill. Facilities will be provided within the Main Building for the transfer of APC residues to enclosed vehicles for subsequent transport off site.

Maintenance

5.12.31 An annual maintenance programme will be prepared to ensure all elements of the facility are inspected frequently for damage, maintained and remedial works conducted if necessary. The annual maintenance period, during which waste combustion does not occur but the Facility continues to receive waste which is stored in the baling unit, takes place over approximately 21 days per year on average.

5.13 EfW Construction

5.13.1 MVV O&M GmbH will act as the EPC Contractor for the project[4]. MVV O&M GmbH is a wholly-owned subsidiary of MVV Umwelt GmbH. MVV O&M GmbH has built numerous EfW facilities in Germany and currently operates five of these. MVV O&M specialises in the procurement, design, engineering, and construction of EfW facilities and biomass plants.

Employment

5.13.2 MVV O&M will employ a variety of international and local subcontractors to deliver the facility.

5.13.3 The number of staff will vary during the course of the construction period, from approximately 35, at the end of the construction phase when the plant is being commissioned and the finishing touches are being made to the facility, to a peak of 309 in October 2013.

[4] 'O&M' stands for operations and maintenance and 'EPC' stands for engineering, procurement and construction.

Site Waste Management Plan

5.13.4 Sustainable waste management methods to be applied when dealing with the construction waste arising are set out in the Outline Site Waste Management Plan (SWMP) (at Appendix 15.1 of the Environmental Statement), prepared by the contractor Kier.

Construction Programme

5.13.5 Subject to obtaining planning permission, construction is expected to occur between early 2012 and late 2014 and to take approximately 35 months (including the mobilisation, main construction and commissioning phases).

5.13.6 For the purposes of summarising the construction programme and activities, the construction programme is split into four general phases:

- Mobilisation and Early Works
- Main Works
- Process Installation
- Commissioning

5.13.7 Details of the works required in each of these stages are set out below.

Construction Working Hours

5.13.8 Normal working hours during the construction period are anticipated to be:

Monday to Friday	08:00 – 18:00
Saturdays	08:30 – 13:00

5.13.9 Routine maintenance of plant and equipment may be carried out outside of normal working hours.

5.13.10 There may be instances where certain construction activities which have started and cannot be interrupted (e.g. concrete pours) continue beyond normal working hours but such instances will be minimised as far as possible and agreed in advance with the Public Protection Service of Plymouth City Council.

Construction Traffic

5.13.11 Construction traffic will access and leave the site via Weston Mill Drive to the A38. The number of vehicles per day will vary throughout the construction period.

5.13.12 In order to avoid fouling of the public highway the following measures will be put into place:

- An automatic wheelwash (or similar) will be provided prior to construction commencing and installed as part of the early works.
- A road sweeper will keep the access roads clean.

5.13.13 Design of vehicle routing on site and optimising delivery schedules to minimise truck queuing in the site, at the site entrance and at the Camel's Head junction; and routing of traffic to optimise access to the trunk road network (i.e. A38); will optimise traffic movements and minimise the potential for adverse impacts to air quality associated with vehicle emissions.

Mobilisation and Early Works

5.13.14 A construction compound will be established on the land known as 'Table Top Mountain', to the south west of the proposed EfW CHP facility.

5.13.15 The scope of the mobilisation and early works will include:

- Discharge of any pre-commencement planning conditions;
- Additional geotechnical site investigation;
- Detailed civil and structural engineering designs;
- Temporary works designs;
- Relocation of the outside perimeter MoD fence;
- Preparation of a fully integrated and coordinated programme;
- Preparatory works for the site mobilisation;
- Connection to temporary electricity supply, most likely to be fed from the existing supply at Bull Point;
- Construction of the MoD access road to Bull Point (see Appendix 6.6 for construction method statement with focus on avoiding / minimising impacts on the water environment); and
- Construction of the access road from the Camel's Head gate to the site.

Main Works

5.13.16 Following completion of these early works, the main site earthworks and piling will be carried out by the civil contractor.

5.13.17 It is proposed to raise the level of the site with inert selected granular material to provide a level platform at 9m AOD. This will minimise the extent of excavation in difficult ground conditions whilst raising the deeper elements of the structure (the waste bunker) thus reducing the level of dewatering required during construction.

5.13.18 Groundwater monitoring has been undertaken across the site. Existing investigations indicate that ground water level varies between approximately -2.6m and 2.1m AOD and are likely to be influenced by tidal fluctuations. Tidal predictions indicate a high tide of approximately 6m AOD in the Devonport area.

5.13.19 The deepest areas of the main building are the waste bunker and the water tanks. The majority of the waste bunker will be founded at a level of approximately 7m AOD and a deeper waste delivery area at a level of approximately 0m AOD. Ground water levels obtained from previous investigations suggest the deeper portion of the bunker will be within the water table therefore dewatering will be required during construction. The optimum solution that has been developed is to use a secant piled wall with grout curtain for the retaining walls of the waste bunker. When the retaining wall is completed the ground will be excavated within and well points and a temporary water pump will be installed until the base of the bunker has been completed and made watertight. The groundwater has high sulphate levels and as such dewatering discharge may require treatment to ensure that it does not have any adverse impacts to receiving water bodies. Treatment may include, but is not limited to, sediment filtration, settlement or neutralisation. Final proposals will be dependent on further sampling during construction.

5.13.20 The excavated material has been identified as suitable for re-use on an industrial site and as such the design has been based on all material being re-used on site. This significantly contributes towards the SWDWP aspiration for significant reduction in waste to landfill.

5.13.21 It is proposed to found all areas of the main structure on piled foundations extending approximately 7m into the Saltash Formation (shale bedrock). Records from current site investigations confirm the presence of buried concrete, steel and timber obstructions within the made ground that limits the options available for pile installation. Underlying the made ground is a layer of alluvium, beneath which is shale bedrock. The risk of obstructions in the ground has resulted in the selection of large diameter rotary bored piles as the most suitable method of piling. Pile arisings will require lime stabilisation to dry out and be suitable as engineering fill in the hardstanding areas.

5.13.22 The external hardstanding areas of the site will take the form of a concrete hardstanding founded on a 150mm thick layer of well compacted Type 1 granular material. This construction make up will overlie the existing granular formation at lower levels and a well compacted

granular fill material used to raise the main site level to 9m AOD. Transition slabs will be provided at all level access points into the building.

5.13.23 Grading of the site access routes will be required to provide a constant grade to make up approximately 5m from the new site access bridge across the creek. The new bridge will take the form of a two-way access composite steel and concrete bridge spanning approximately 18m with abutment foundations founded on the saltash bedrock formation. See Appendix 6.5 of the Environmental Statement for the construction method statement.

5.13.24 Foundations for the ACCs will be constructed. See Appendix 6.4 of the Environmental Statement for the construction method statement.

5.13.25 The erection of concrete structures and steelwork framing, and roof and wall cladding, will then take place.

Process Installation

5.13.26 Process installation will partly overlap with the main works and will include the installation of grate and boiler works, baling plant works, ACC and auxiliary coolers, the turbine, a water treatment plant, balance of plant and APC system.

Commissioning

5.13.27 Following the completion of main works and process installation there would be a period of start-up and testing known as 'commissioning'. This will end with an acceptance test before the planned service commencement date.

5.14 Construction Environmental Impact Control

5.14.1 A Construction Environmental Management Plan has been prepared by Kier and can be found at Appendix 6.3 of the Environmental Statement.

5.14.2 MVV will apply for prior consent under Section 61 of the Control of Pollution Act 1974. A Section 61 agreement is a statutory agreement between a contractor and a local authority to control the allowable limits of noise and vibration arising from construction activities prior to works commencing. Once the local authority has issued the formal consent to the Section 61 application, the contractor is legally bound to work within its conditions. Any change of working hours, method, plant type or volume requires to be agreed by dispensation or variation with the local authority. Any breach of the Section 61 consent that cannot be resolved with the local authority will result in a Section 60 abatement notice being served.

5.14.3 Water bowsers fitted with spray bars to provide dust suppression to the work areas and access/egress route will be utilised where necessary. All dust emitting plant and equipment where chosen as a last available option will be fitted with water suppression equipment. Stockpiles of materials will be covered to limit the generation of dust during dry periods.

Security and external lighting

5.14.4 Before the commencement of the construction works on site, MVV will develop in close cooperation with the local fire, emergency and Police authorities adequate Safety and Security Plans for the construction site in accordance with BS9999. A first step will be the Fire Risk Assessment, followed by a Fire Risk Audit. The identified fire risks in the Fire Risk Assessment and the Fire Risk Audit will be addressed appropriately and fire prevention measures will be developed and made accessible to the site personnel.

5.14.5 The construction site will be lighted adequately to ensure safe working conditions. All lighting will be positioned and adjusted so that it does not cause a nuisance to neighbouring properties. Night time illumination, outside of working hours, will be reduced to a minimum commensurate with the need to maintain the security requirements of the site and the Dockyard, to reduce the environmental impact, and reduce light pollution.

5.14.6 All systems will be regularly inspected and maintained, including:

- Daily visual inspections of the fence line;
- Daily inspections of the CCTV;
- Regular testing of the audible and visual emergency warning system; and
- Any identified faults or damage will be repaired promptly.

Construction Fencing and Access Gates

5.14.7 A new security fence will be established such that the site and its access route falls outside of the secure area of HMNB Devonport. This new fence will be one of the first activities of the construction phase and there will be no significant presence on the site until this fence is complete and taken over by the MoD as acceptable for their ongoing security purposes. The fence will be up to 3m in height, Class 3 intermediate security welded mesh fencing to BS 1722 Part 14 with barbed wire topping.

Monitoring Access for Construction

5.14.8 The necessary infrastructure and personnel to provide a secure and safe construction site will be provided and equipment to control unauthorised access to the site will be installed. This includes:

- Site security fencing around the entire site perimeter;
- Appropriately positioned CCTV system;
- Full time (24 hour, 7 days a week) attendance of security personnel;
- Access control at all entrances to and exits from the site;
- Adequate lighting; and
- Acoustic and visual fire and emergency alarm system.

6 Planning Policy

6.1 Introduction

6.1.1 This chapter contains a review of the main planning and waste management policy and other policy and strategy that is relevant to the determination of this planning application. The chapter is structured as follows:

6.2 Overview of relevant policy

6.3 Review of main policy documents

6.4 Summary of main policy issues

6.1.2 Chapters 7, 8 and 9 provide an assessment of the development against the main planning policy issues that emerge from the review of planning policy in this chapter. Appendix 7 to this Supporting Statement provides a detailed policy by policy assessment of the compatibility of the proposed development with relevant development plan policy and the main relevant national planning policy.

6.2 Overview of Relevant Policy and Strategy

6.2.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that determination of applications for planning permission be made in accordance with the development plan unless material considerations indicate otherwise. Section 38(3) of the Act defines the development plan as the regional spatial strategy and adopted or approved development plans.

6.2.2 The development plan for the application site comprises the documents listed below. Also listed are the other main policy documents which are material to the consideration of the application, drawn from emerging development plan documents, supplementary planning documents, adopted national planning policy, waste management policy and strategy and other relevant policy and strategy.

The Development Plan

- Regional Planning Guidance for the South West (RPG 10) (adopted September 2001)
- Plymouth Core Strategy 2006-2021 (adopted April 2007)
- Plymouth Waste Development Plan Document 2006-2021 (adopted 2008)

The Emerging Development Plan

- The Draft Revised Regional Spatial Strategy for the South West Incorporating the Secretary of State's Proposed Changes – for Public Consultation July 2008

National Planning Policy

6.2.3 Overarching national spatial planning policy is contained in Planning Policy Statement (PPS) 1, Delivering Sustainable Development (2005) (PPS1). Other national planning policy is generally presented in topic-specific Planning Policy Statements and those directly relevant to waste management development are listed below.

- Planning Policy Statement 1 Supplement - Planning and Climate Change (December 2007)
- Planning Policy Statement 4 – Planning for Sustainable Economic Growth (December 2009)
- Planning Policy Statement 10 - Planning for Sustainable Waste Management (March 2011)
- Planning Policy Statement 22 – Renewable Energy (August 2004)
- Planning Policy Statement 23 - Planning and Pollution Control (November 2004)

6.2.4 Other topic-specific Planning Policy Statements are material to the determination of this planning application. However, these topic-specific policies are addressed in detail primarily in the relevant chapters of the Environmental Statement and a summary is presented in Chapter 8 of this supporting statement. The most relevant national planning policy and policy guidance is listed below.

- Planning Policy Statement 5 – Planning for the Historic Environment (March 2010)
- Planning Policy Statement 9 – Biodiversity and Geological Conservation (August 2005)
- Planning Policy Guidance 13 - Transport (March 2001)
- Planning Policy Guidance 24 - Planning and Noise (October 1994)
- Planning Policy Statement 25 - Development and Flood Risk (March 2010)

6.2.5 Additionally, the government has published a number of draft National Planning Policy Statements (NPS) for consultation, including a NPS for Energy (EN1) and for Renewable Energy Infrastructure (EN3). These NPSs are part of the new planning regime under the Planning Act 2008, which includes the establishment of the Infrastructure Planning Commission (IPC) and the publication of NPSs across a range of infrastructure types. Under the draft EN3, the EfW CHP Facility planning application is not of a scale that would fall to be determined by the IPC and the NPS has limited relevance to this planning application, but it has been taken

into account in this review of planning policy. The Revised Draft NPS for Energy (NPS1) and Renewable Energy (EN-3) include policy on the sustainable development topics of good design, site selection, the importance of CHP and good transport links. Policy on the environmental impact topics of air quality, landscape and visual and noise and vibration impacts and water quality is also included. Policy on the reduction in the amount of waste landfilled and residue management is also a feature of EN-3.

Other Relevant Waste Management and Planning Policy

6.2.6 European waste management policy is generally enacted in the UK through legislation and incorporated in the policy documents listed below.

- National Waste Strategy 2007
- Regional Waste Strategy for the South West 2004 – 2020
- Plymouth City Council Municipal Waste Management Strategy 2007-2030
- South West Devon Waste Partnership Joint Municipal Waste Management Strategy Statement (Outline Business Case Appendix 3D – April 2008)
- Devon Waste Local Plan 2006
- Torbay Local Plan 1995 – 2011 (Adopted April 2004)
- Plymouth's Sustainable Community Strategy 2007-2020.
- Plymouth City Council "Sustainable Design - Supplementary Planning Document" (adopted 6 July 2009)
- Plymouth Local Economic Development Strategy 2006 – 2021 & Beyond (Adopted 2006)
- Plymouth Local Transport Plan 2 (2006 – 2011)
- Plymouth Local Transport Plan 3 (2011 – 2026)

6.2.7 Notwithstanding the role of UK legislation and policy in implementing EU legislation and policy, of note is the recently published European Commission Energy Efficiency Plan 2011[5], which states in Chapter 4 that:

"Greater use of (high-efficiency) cogeneration, including from municipal waste treatment plants, and district heating and cooling can make an important contribution to energy efficiency. The Commission will therefore propose that, where there is a sufficient potential demand, for example where there is an appropriate concentration of buildings or industry nearby, authorisation for new thermal power generation should be conditional on its being combined

[5] Communication from the commission to the European Parliament, the council, the European economic and social Committee and the committee of the regions. Energy efficiency plan 2011. (COM(2011) 109 final) 08/03/11.

with systems allowing the heat to be used – "combined heat and power" (CHP) – and that district heating systems are combined with electricity generation wherever possible. To improve the energy-saving performance of CHP systems, the Commission also proposes that electricity distribution system operators provide priority access for electricity from CHP, and will propose reinforcing the obligations on transmission system operators concerning access and dispatching of this electricity."

The Localism Bill

6.2.8 The Decentralisation and Localism Bill (published 14 December 2010) (The Localism Bill) contains wide-reaching reforms of the planning system in England. The programme for progress of the Localism Bill to receipt of Royal Assent, and the content of the Act, is uncertain at the time of the submission of this planning application. The content of the Localism Bill, and of a number of ministerial statements issued in relation to the Localism Bill and consequent revisions to the planning system, is an important guide to the direction of national planning policy and the likely content of the proposed National Planning Policy Framework (NPPF), which is expected to include a new definition of sustainable development and to be finalised by the end of 2011. The Localism Bill is a material consideration for this planning application.

6.2.9 On 23 March 2011, the government published 'The Plan for Growth' (HM Treasury/Department for Business, Innovation and Skills) alongside its budget. At paragraph 1.34, The Plan for Growth lists "*a powerful new presumption in favour of sustainable development, so that the default answer to development is 'yes'*" as one of its intended "*radical and fundamental*" reforms of the planning system. At paragraph 2.12, The Plan for Growth notes that "*The Government will publish a draft presumption in favour of sustainable development in May 2011, alongside details of how it proposes to integrate the presumption into national planning policy."* At paragraph 2.14, The Plan for Growth notes that *"The Government's top priority in introducing the NPPF will be to support long-term sustainable economic growth"*

6.2.10 Referring to a ministerial statement by the Decentralisation Minister, issued on 23 March 2011, paragraph 2.9 of The Plan for Growth "*This statement of Government policy is capable of becoming a material consideration in local planning decisions with immediate effect*", and that "*The Chief Planning Officer will write to all local planning authorities to outline the Government's intent*."

6.2.11 The Decentralisation Minister's statement is wide-ranging and the following extracts are of particular relevance to this planning application.

"Government's clear expectation is that the answer to development and growth should wherever possible by 'yes', except where this would compromise the key sustainable development principles set out in national planning policy."

"The Chancellor has today set out further detail on our commitment to introduce a strong presumption in favour of sustainable development in the forthcoming National Planning Policy Framework, which will expect local planning authorities to plan positively for new development;

to deal promptly and favourably with applications that comply with up-to-date plans and national planning policies;".

"When deciding whether to grant planning permission, local planning authorities should support enterprise and facilitate housing, economic and other forms of sustainable development. Where relevant - and consistent with their statutory obligations - they should therefore:

(i) consider fully the importance of national planning policies aimed at fostering economic growth and employment, given the need to ensure a return to robust growth after the recent recession…….

…..(iii) consider the range of likely economic, environmental and social benefits of proposals; including long term or indirect benefits such as increased consumer choice, more viable communities and more robust local economies (which may, where relevant, include matters such as job creation and business productivity)".

"In determining planning applications, local planning authorities are obliged to have regard to all relevant considerations. They should ensure that they give appropriate weight to the need to support economic recovery, that applications that secure sustainable growth are treated favourably (consistent with policy in PPS4), and that they can give clear reasons for their decisions."

"The Secretary of State for Communities and Local Government will take the principles in this statement into account when determining applications that come before him for decision. In particular he will attach significant weight to the need to secure economic growth and employment."

"Benefits to the economy should, where relevant, be an important consideration when other development-related consents are being determined, including…..heritage, environmental, energy and transport consents. The Secretary of State for Culture, Olympics, Media and Sport, the Secretary of State for the Environment, Food and Rural Affairs, the Secretary of State for Energy and Climate Change and the Secretary of State for Transport have consequently agreed that to the extent it accords with the relevant statutory provisions and national policies, decisions on these other consents should place particular weight on the potential economic benefits offered by an application. They will reflect this principle in relevant decisions that come before them and encourage their agencies and non departmental bodies to adopt the same approach for the consents for which those other bodies are directly responsible."

6.2.12 Further, in a recent public statement (address to CPRE, March 2011) Energy and Climate Change Secretary Chris Huhne stated "landscape change is inevitable in the battle against climate change" and in relation to the security and affordability of electricity supplies, "Sometimes, national need will mean we have to sit down and take a tough decision about local impacts".

6.2.13 From this brief analysis of the Localism Bill and the likely implications for planning decisions, it is apparent that, because of the programme towards Royal Assent and the programme for the

adoption of the NPPF, considerable weight should be given in the determination of this planning application to the contents of the Bill, the NPFF, the Strategy for Growth and the relevant ministerial statements. It is abundantly clear therefore that great weight should be given to the delivery of sustainable economic development objectives when determining planning applications and, in circumstances where development proposals are in accordance with sustainable development principles established in national policy, the sustainable economic development benefits of development proposals may need to outweigh limited local impacts caused by the development.

Regional Strategies

6.2.14 On 06 July 2010, the government wrote to Chief Planning Officers[6], to advise that the Secretary of State had announced the revocation of Regional Strategies with immediate effect. Regional planning documents would no longer be required under the new government planning proposals. Subsequently the High Court ruled that the Secretary of State's revocation of regional spatial strategies was unlawful, effectively re-instating Regional Strategies to development plan status. However, a further High Court judgement has ruled that the Government's intended abolition of regional strategies can be taken into account by planning authorities as a material consideration when making planning decisions and that it is for the decision maker to decide the appropriate weight to attach to Regional Strategies, depending on individual circumstances.

6.2.15 In any case, guidance issued with the Chief Planning Officer Letter confirms that data and research currently held by Regional Local Authorities Leaders' Boards will still be available to WPAs for the preparation of their Development Plan Documents. Further, the guidance states that, in reference to the waste development plan preparation process:

"*Data and information prepared by partners will continue to assist in this process. For the transitional period this will continue to be the data and information which has been collated by the local authority and industry and other public bodies who currently form the Regional Waste Technical Advisory Bodies*".

6.2.16 Given that the Regional Spatial Strategy for the South West (Draft RSS) has not yet been adopted, the 'Regional Planning Guidance for the South West' (RPG10) (2001) remains the current Regional Strategy and forms part of the statutory development plan. The Draft RSS underwent Examination in Public in 2007 and was submitted to the Secretary of State in January 2008. As a result of the Secretary of State's proposed changes to the Draft RSS it was announced that further Sustainability Appraisal (SA) work was required. The Draft RSS has not yet been adopted following the SA work, and given the current situation with regard to regional planning, it is unlikely that it will ever be formally adopted. The Draft RSS therefore forms part of the emerging development plan and is a material consideration in development control decisions.

6.2.17 In the case of this planning application, it will be for the Local Planning Authority to determine the weight given to Regional Spatial Strategy policy, but, assuming that Regional Strategies are

[6] Chief Planning Officer Letter: Revocation of Regional Strategies, July 6, 2010.

abolished (in accordance with Clause 89 of the Localism Bill) the evidence base that informed the preparation of the Regional Spatial Strategy is still likely to be a material consideration in the determination of this planning application, until fresh evidence is produced and tested. This Planning Application Supporting Statement takes account of the current and likely future status of the Regional Spatial Strategy and its evidence base.

6.3 Review of Main Policy Documents

The Development Plan

Regional Planning Guidance for the South West (RPG 10)

6.3.1 RPG10 was published in 2001 and was prepared to provide a regional spatial strategy within which local authority development plans in the south west should be prepared. Although it remains part of the development plan, RPG10 is approximately 10 years old and therefore pre-dates the publication of PPS10: Planning for Sustainable Waste Management. Paragraph 5 of PPS10 states that:

"*in considering planning applications for waste management facilities before development plans can be reviewed to reflect this PPS,* [Waste Planning Authorities should] *have regard to the policies in this PPS as material considerations which may supersede the polices in their development plan.*"

6.3.2 Further, paragraph 23 of PPS10 states that:

"*In the interim period before the development plan is updated to reflect the policies in this PPS, planning authorities should ensure proposals are consistent with the policies in this PPS and avoid placing requirements on applicants that are inconsistent.*"

6.3.3 Consequently, where policy issues are duplicated in PPS10 and the development plan was adopted before 2005 (as with RPG10) and where emerging policy is not adopted (Draft RSS for the South West), the policies of PPS10 should prevail.

6.3.4 Policy RE5 of RPG10 addresses the management and transportation of waste, stating that a mix of recovery methods should be established regionally and sub-regionally and setting targets for composting, recovery and the diversion of waste from landfill. Policy RE5 also states that priority should be given to waste management facilities that will recover value from waste at or near the principal urban areas, taking account of waste management requirements in the urban area and neighbouring county areas and of sub-regional requirements. This policy seeks the implementation of sustainable waste management and demonstrates the need for new waste management facilities in order to divert waste from landfill.

6.3.5 Policy RE6: Energy Generation and Use, sets targets for the reduction in greenhouse gas emissions and renewable energy generation and encourages greater use of renewable sources

of energy such as Combined Heat and Power (CHP). This policy seeks sustainable energy production in order to help minimise the environmental impact of energy generation and address the causes of climate change.

Plymouth Core Strategy 2006-2021

6.3.6 The Plymouth Core Strategy 2006 – 2021 (the Core Strategy) contains 'higher level' policies for delivering the spatial vision for Plymouth, guiding broad patterns of development and constraint. Strategic Objective 1 (SO1), Delivering Plymouth's Strategic Role, sets out objectives to accommodate a high level of growth for Plymouth, and develop the City's strategic role within the South West Region. SO1 states that the delivery of the vision will be set firmly in the context of delivering 'Urban Renaissance' and Sustainable Communities, including working towards carbon neutrality through the reduction of consumption, the provision of renewable energy and reducing the need to travel. This strategic objective promotes the delivery of sustainable development.

6.3.7 Other Strategic Objectives (SO) of the Core Strategy include: SO2 which sets the aim of establishing Plymouth as a city of truly international quality by 2021; SO3, which aims to deliver sustainable linked communities; SO4, which promotes the development of Plymouth as a vibrant, diverse and distinctive city; and SO11, delivering a sustainable environment. These strategic objectives also relate to sustainable development and the need to deliver the vision for Plymouth.

6.3.8 SO11 includes the twin objectives of "*Reducing the consumption of non-renewable sources e.g. fossil fuels, land, soil, and minerals in line with national and regional targets*"; and "*Promoting renewable energy and address the causes and potential impacts of climate change."* Policy CS20 on sustainable resource use includes targets for on-site renewable energy production.

6.3.9 A report for Plymouth City Council entitled "A City of Plymouth District Energy Study Feasibility Study for an Energy Services Company (ESCo) in Plymouth" (January 2010), concludes that the combined energy loads of Devonport Dockyard and HMNB Devonport could offer potential for an ESCo. MVV is actively involved in the ongoing ESCo market testing exercise being led by Plymouth City Council.

6.3.10 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. Point 5 of SO13 states that the LDF should support these objectives and maintain flexibility by:

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

6.3.11 This strategic objective sets out the need for sustainable waste management while recognising the importance of avoiding unacceptable environmental effects and amenity impacts.

6.3.12 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.

6.3.13 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.

6.3.14 The Core Strategy also includes a number of policies that set out principles for protecting the environment and public amenity, including policies: CS19: Wildlife, CS20: Sustainable Resource Use, CS21: Flood Risk, CS22: Pollution, CS28: Local Transport Considerations and CS32: Designing Out Crime. Policy CS04 supports the provision of future employment sites and CS05 supports the development of existing employment sites provided locational and sustainability criteria are met.

6.3.15 Core Strategy Policy CS34 also sets out the key considerations in development control decisions, which largely relate to the objective of minimising environmental and amenity impacts and include: impacts on climate change, flood risk, wildlife, natural resource use and pollution; efficient and appropriate use of land; contribution to townscape, landscape and biodiversity; compatibility with surroundings; incorporation of public space, landscaping and 'designing out crime' initiatives; protection of amenity of the area, including residential amenity in terms of daylight, sunlight, outlook, privacy and soft landscaping; ensuring public safety; satisfactory and safe access; demonstration of sufficient capacity of drainage, waste water and sewerage infrastructure; and ensures (where appropriate) equality of use and access to all sections of the community. The criteria set out by Policy CS23 also largely relate to ensuring sustainability and the avoidance of unacceptable environmental and amenity impacts.

Plymouth Waste Development Plan Document 2006-2021

6.3.16 The Plymouth Waste Development Plan Document 2006 – 2021 (the Waste DPD) 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.

6.3.17 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 Ernsettle Lane respectively for strategic facilities for the management of Plymouth's municipal waste. 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.

6.3.18 Policy W7 states that proposals for strategic waste management development on sites not allocated in the Waste DPD will be permitted providing certain criteria are met, such as: consistency with waste planning policies and objectives, the reuse of previously developed land, compatibility with their environmental setting, the avoidance of unacceptable environmental or amenity impacts, proximity to the principle road network and avoiding conflict with other spatial planning objectives. These criteria relate to the themes of sustainable waste management and environmental effects & amenity impacts.

6.3.19 Policy W8 complements and expands on Policy W7, setting out the decision making criteria that all waste management development, be it strategic or local and whether on allocated or unallocated sites, must meet. These criteria include the implementation of mitigation measures as necessary to protect amenity, good standards of design, energy efficiency and sustainability and adequate internal vehicle manoeuvring arrangements. Some of the criteria overlap with those of Policy W7 and most relate to themes of sustainable waste management and environmental effects & amenity impacts.

The Emerging Development Plan

Draft Revised Regional Spatial Strategy for the South West (July 2008)

6.3.20 Draft RSS Policy W1 states that WPAs 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, which are also key years for the delivery of waste targets in the Waste Strategy for England.

6.3.21 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 Strategically Significant Cities and Towns (SSCTs) (of which Plymouth in one), in accordance with the following sequential preference; within → on the edge of → in close proximity to the urban area served by the facility. Policy W2 also sets out criteria to be considered in the identification of sites for new waste management facilities, including established industrial sites, previously developed land and opportunities to maximise efficiency through use of by-products of the waste management process in other processes, for example waste heat.

6.3.22 Policy RE1: Renewable Electricity Targets, sets a regional target of 509-610 MWe of onshore renewable electricity generation by 2010, including 151 MWe 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.

National Planning Policy

6.3.23 PPS1 sets out the government's objectives for the planning system and national planning policies, including key principles.

6.3.24 One of the main stated objectives for the planning system in PPS1 is that:

"Planning should facilitate and promote sustainable and inclusive patterns of urban and rural development by (inter alia) 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.

6.3.25 The key principles are aimed at the delivery of sustainable development, including addressing the causes of climate change and promoting high quality design. Of specific relevance to this planning application are the following national planning policy principles (PPS1, paragraph 13).

- *"(i)….development plans promote outcomes in which environmental, economic and social objectives are achieved together over time."*
- *"(ii)….development plans contribute to global sustainability by addressing the causes and potential impacts of climate change – through policies which …..promote the development of renewable energy resources and take climate change impacts into account in the location and design of development."*
- *"(iv)….planning policies should promote high quality inclusive design…."*

6.3.26 PPS1 also includes policies that seek to protect and enhance the quality of the environment, ensure the prudent use of natural resources and secure sustainable economic development. In particular PPS1, paragraph 19, states that:

"Significant adverse impacts on the environment should be avoided and alternative options which might reduce or eliminate those impacts pursued. Where adverse impacts are unavoidable, planning authorities and developers should consider possible mitigation measures. Where adequate mitigation measures are not possible, compensatory measures may be appropriate."

and, in paragraph 23;

(Planning Authorities should) "Recognise the wider sub-regional, regional or national benefits of economic development and consider these alongside any adverse local impacts; "

6.3.27 Paragraph 29 of PPS1 states:

"In some circumstances, a planning authority may decide in reaching a decision to give different weight to social, environmental, resource or economic considerations. Where this is the case, the reasons for doing so should be explicit and the consequences considered. Adverse environmental, social and economic impacts should be avoided, mitigated, or compensated for."

6.3.28 The PPS1 supplement on climate change, which post dates the Plymouth Core Strategy and the Plymouth Waste Development Plan, states that the government's main objectives are to deliver sustainable development and ensure that spatial planning policies include a full and appropriate response to climate change through, inter alia, providing for the needs of communities in a manner which secures the highest viable resource and energy efficiency and reduction in emissions. Paragraph 9 of PPS1 climate change supplement establishes key planning objectives, including that planning authorities should manage the delivery of spatial strategies that:

- *"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;" and*
- *"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;"*

6.3.29 Paragraph 10 of PPS1 supplement on climate change sets out decision making principles, which local planning authorities should apply in making decisions about their spatial strategies, including:

- *"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;*
- *new development should be planned to minimise future vulnerability in a changing climate; and*
- *climate change considerations should be integrated into all spatial planning concerns;"*

6.3.30 Paragraph 20 of the PPS1 supplement on climate change relates to the content of development plan documents and requires that local planning authorities should:

6.3.31 *"ensure any local approach to protecting landscape and townscape is consistent with PPS22 and does not preclude the supply of any type of renewable energy other than in the most exceptional circumstances".*

6.3.32 PPS4, Policy EC10, is relevant to planning applications for economic development. Planning Application Supporting Statement Appendix 4 provides details of the contribution that the EfW CHP Facility will make to the local economic and employment opportunities. Policy EC10.1 states:

6.3.33 "*Local planning authorities should adopt a positive and constructive approach towards planning applications for economic development. Planning applications that secure sustainable economic growth should be treated favourably*"; and

6.3.34 PPS4, Policy EC10, states that a number of 'impact considerations should be taken into account when assessing planning applications (for economic development). These criteria include:

- *"a. whether the proposal has been planned over the lifetime of the development to limit carbon dioxide emissions, and minimise vulnerability and provide resilience to, climate change*
- *c. whether the proposal secures a high quality and inclusive design which takes the opportunities available for improving the character and quality of the area and the way it functions*
- *d. the impact on economic and physical regeneration in the area including the impact on deprived areas and social inclusion objectives*
- *e. the impact on local employment"*

6.3.35 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 goes on to state 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, involving significant investment in new waste management facilities. At paragraph 3, 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.
- Protection of green belts and 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.

6.3.36 It is notable that one of the key planning objectives of national waste management planning policy is that recognition of the wider sustainable development benefits of waste management development should be given great weight in planning decisions.

6.3.37 At paragraph 20 and 21, PPS10 sets out a sequential test policy for the location of waste management development, stating that waste planning authorities should consider "*a broad range of locations including industrial sites*" and "*give priority to the re-use of previously developed land….*"

6.3.38 PPS10 also states (at paragraph 24) 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 national policies and the waste planning authority's Core Strategy.

6.3.39 PPS22 sets out the government's key planning policy principles for renewable energy, which include, at paragraph 1, that:

- *"Renewable energy developments should be capable of being accommodated throughout England in locations where the technology is viable and environmental, economic, and social impacts can be addressed satisfactorily." and*

- *"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."*

At paragraph 19, PPS22 addresses the landscape and visual effects of renewable energy developments, stating:

"*The landscape and visual effects of particular renewable energy developments will vary on a case by case basis according to the type of development, its location and the landscape setting of the proposed development. Some of these effects may be minimised through appropriate siting, design and landscaping schemes, depending on the size and type of development proposed. Proposed developments should be assessed using objective descriptive material and analysis wherever possible even though the final decision on the visual and landscape effects will be, to some extent, one made by professional judgement.*"

6.3.40 PPS23 addresses pollution control as it relates to spatial planning. The policy focus of PPS23 is on the protection of the environment and human health from pollution arising from development. PPS23 also deals with the relationship between the planning and pollution control regimes, stating that the controls under both regimes should complement rather than duplicate each other, pre-application discussions should involve representatives from both

regimes and applications for planning permission and Environmental Permits should be submitted in parallel where it is efficient to do so.

Other Relevant Planning and Waste Management Policy

National Waste Strategy 2007

6.3.41 The National Waste Strategy 2007 sets out four main aims, which can be summarised as:

- Addressing climate change.
- Reducing waste, the generation of methane gas and the use of energy in the production of new products.
- Breaking the link between economic growth and waste growth through re-use, recycling and the recovery of energy from waste.
- Applying the waste hierarchy, which places disposal as the least preferred option.

6.3.42 The Strategy includes a number of objectives and targets for diversion of waste from landfill and recycling and recovery of energy from waste. These targets drive the need for new waste management facilities.

Regional Waste Strategy for the South West 2004 - 2020

6.3.43 *'From Rubbish to Resource'* Regional Waste Strategy for the South West, is a non-statutory strategy, published in 2004 with the aim of ensuring that a target of 45% reuse and recycling of waste is achieved by 2020 and less than 20% of waste produced in the south west region is landfilled. To achieve this aim, the strategy states that the principles of the waste hierarchy should be adopted. The spatial elements of the Regional Waste Strategy, including sub-regional capacity allocations and the provision of waste treatment facilities close to urban centres have been incorporated into the Draft RSS for the South West.

Plymouth City Council Municipal Waste Management Strategy 2007-2030

6.3.44 The Plymouth City Council Municipal Waste Management Strategy 2007-2030 (PCCMWMS) sets out the preferred strategy for dealing with Plymouth's municipal waste. The preferred strategy is to promote waste minimisation through education and awareness (Policy 1), increase the recycling of household waste to 30% by 2010 and 33% by 2015 (Policy 4) through the improvement of kerbside recycling (Policy 5) and Bring Sites (Policy 6), and to avoid financial penalties relating to the Landfill Allowance Trading Scheme (LATS) by procuring waste treatment technology (Policy 9):

"Plymouth City Council will procure a waste treatment facility for the processing of municipal waste not recovered through recycling and composting systems. Recovery of energy from the waste should be maximised where possible."

6.3.45 The PCCMWMS states that Plymouth's residual municipal waste is currently disposed of by landfilling at Lean Quarry near Liskeard, and acknowledges that landfill is seen as the least sustainable method of waste management and that costs of continuing to landfill Plymouth's waste are set to rise substantially due to increasing landfill tax, the introduction of the LATS and increasing scarcity of available landfill capacity in or near Plymouth. Table 2.8 of the PCCMWMS projects that the potential cost of failing to provide an alternative disposal method to landfilling over the period 2007-2020 could be approximately £97.5 million. While the PCCMWMS does not specify a preferred waste disposal technology, it does state that technical modelling suggests that the recovery of energy from waste via thermal processes is a cost efficient, low risk and sustainable solution. The Proximity Principle of treating waste close to its source is also reiterated in the PCCMWMS.

6.3.46 The PCCMWMS supports the concept of joint working with other authorities to deliver sustainable waste management on a sub-regional basis, with Policy 11 stating that the Council will continue to investigate opportunities in this regard.

South West Devon Waste Partnership Joint Municipal Waste Management Strategy

6.3.47 The SWDWP JMWMS provides a summary of existing municipal waste management strategies for each of the SWDWP authorities and should be read in conjunction with the PCCMWMS. The JMWMS proposes to achieve recycling/composting performance targets and procure a sub-regional Energy from Waste facility to manage residual waste. The JMWMS documents an options evaluation process to establish a preferred option for the treatment of residual waste from the SWDWP area, concluding that an EfW facility located in Plymouth was the preferred option.

Devon Waste Local Plan

6.3.48 The Devon Waste Local Plan (June 2006) sets out objectives and policies for planning for waste management in Devon. The proposed development is located outside of the area covered by the Devon Waste Local Plan and as such the document does not form part of the development plan for the Site. However, given that the proposed development is to be delivered to manage waste from some parts of Devon, it is considered that the proposals could have an impact on the objectives of the plan, and it is therefore reasonable to give consideration to the impacts of the proposed development on the objectives of the Devon Waste Local Plan.

6.3.49 The objectives of the Devon Waste Local Plan include:

> "*4) Ensure that proposals for waste management facilities are as sustainable as possible;*
>
> *5) Ensure that the management of waste is as per the principles of the waste hierarchy;*
>
> *6) Encourage the provision of waste management facilities close to major centres of population;*

7) Ensure, where possible, that Devon's waste is treated or disposed of within the County and to provide facilities with sufficient capacity to manage the County's anticipated waste arisings for at least 10 years.

8) Promote the establishment of an effective and integrated network of waste management facilities to serve national, regional, sub regional and local needs."

5.3.33 The supporting text to Objective 7 highlights the fact that RPG10 advocates the preparation of a waste management strategy for the South West. Objective 8 states the need for the provision of waste management facilities should take account of regional and sub regional needs, which may be the most appropriate level for the delivery of sustainable waste management.

6.3.50 As described in paragraph 3.10.2, the Waste Local Plan Strategy adopts a 'decentralised' approach, linking provision of 4-6 locations for strategic waste management facilities to the main Principal Urban Areas of Plymouth, Torbay and Exeter and the smaller Sub-regional Centres and Area Centres. Paragraph 3.10.3 goes on to state that:

"In order to achieve consistency with the sequential approach of Policy P10.1 of the Regional Waste Strategy (see paragraph 2.4.6) and with the development priority of Policy ST5 of the Devon Structure Plan, it is considered that waste management facilities that are likely to cater to a significant degree for waste originating from within the Principal Urban Areas of Plymouth and Torbay should be located within those settlements, unless it can be demonstrated that, for the Plan period:

- *no existing or permitted sites for the particular type of facility are available within the Principal Urban Area;*
- *no suitable potential sites are available within the Principal Urban Area; or,*
- *a more sustainable option is available outside of the Principal Urban Area."*

6.3.51 Policy WPP1 of the waste local plan allocated nine sites for potential strategic waste management facilities, including EfW.

Torbay Local Plan

6.3.52 Chapter 10 of the Torbay Local Plan covers waste management issues. Saved policies WS and WS2, 3, 5, 6 and 7 remain part of the extant development plan for Torbay. Policy on waste strategy (Policy WS) refers to the 'Best Practicable Environmental Option' (which no-longer part of national planning policy, regional self-sufficiency, the proximity principle and the waste hierarchy.

Plymouth's Sustainable Community Strategy 2007-2020

6.3.53 Plymouth's Sustainable Community Strategy states that the long-term priorities for the city include the effective management of Plymouth's waste which will enable each resident to produce less waste and will reduce the proportion of waste sent to landfill. The strategy also states that it is a long-term priority to tackle climate change so that levels of carbon emissions are comparable with other similar cities.

Design Supplementary Planning Document (Sustainable Design in Plymouth)

6.3.54 Plymouth City Council's Design SPD provides guidance on design issues in support of Core Strategy Strategic Objective 4 (delivering the quality city) and policies CS02 and CS34 and should be used to help guide the design of buildings and spaces in Plymouth.

6.3.55 The Design SPD sets out key 'questions' that should be considered in the design of development. These questions relate to: Topography, Green Space and Biodiversity, Historic Development, Connections, Views and tall buildings, Delivering Sustainable Communities, Distinctive Neighbourhoods, Connected and accessible city, Safe and attractive streets and spaces, Promoting a net gain in biodiversity, Balanced mix of uses for sustainable living, Promoting attractive buildings and Development that responds to the needs of the future. The Design and Access Statement (Appendix 1 to this PASS) and Climate Change and Sustainability Statement (Appendix 2 to this PASS) set out how the design of the proposed development has evolved to take account of the Design SPD policy.

Plymouth Local Economic Development Strategy 2006 – 2021 & Beyond

6.3.56 The local economic strategy sets out six broad aspirations for the city, which include "A City with an adaptable and skilled workforce, constantly learning" and "A City where a genuine commitment to sustainable development reinforces a set of unique environmental assets". There is also a sectoral focus within the strategy which identifies six priorities, including advanced engineering and marine industries and renewables.

6.3.57 The Strategy also highlights the levels of deprivation in key neighbourhoods adjacent to the site and illustrates the need for new employment opportunities for local residents.

Plymouth Local Transport Plan 2 (2006 – 2011)

6.3.58 Plymouth's second Local Transport Plan (LTP2) sets out the transport strategy and implementation programme for transport in Plymouth from 2006 to 2011. This Plan describes the strategy for delivering the Government's shared priorities for transport in the city over the LTP2 period. LTP2 has 7 objectives, which include Objective 2: To reduce the rate of growth of traffic congestion; Objective 4: To improve air quality and the environment; and Objective 5: To support Plymouth's urban renaissance and sustainable growth.

Plymouth Local Transport Plan 3

6.3.59 Plymouth has recently produced its draft third Local Transport Plan. This LTP has a timeframe which replicates the city's growth agenda as detailed in the Local Development Framework and will cover the period from 2011 to 2026. The draft LTP3 is split into two main parts; the first is the Transport Strategy which focuses on the problems and opportunities that exist and the role transport has in improving peoples' lives. The second part consists of an Implementation Plan which outlines the measures that will be developed and delivered with the benefits and outcomes they are predicted to provide.

6.4 Summary of Main Policy and Strategy Issues

6.4.1 The PCCMWMS describes current arrangements for the management and disposal of Plymouth's municipal waste, setting out the context that means it cannot continue to rely on landfill for the disposal of residual waste on a long term basis. Strategic Objective SO1 of the PCS sets out some of the background objectives and projections for the future of Plymouth, including projected population growth and states that the City should plan to meet these matters. The 'need' for new facilities to divert waste away from landfill is also a recurring theme of PPS10, RPG10 and Draft RSS policy W1. Plymouth's waste management needs and requirements are further addressed in the PWDPD. The issue of 'need' is therefore a main theme of relevant policy at all levels.

6.4.2 The policy theme of achieving sustainable waste management, and sustainable development generally, is clearly a main objective of national, regional and local planning and waste management policy. For example, PPS1 establishes that taking account of climate change impacts through the location and design of development as a key national planning policy principle and PPS1 requires that new development should be planned to make good use of opportunities for renewable or low carbon energy.

6.4.3 PPS10 advocates the sustainable use of land by establishing a sequential test which gives priority to previously developed land. PPS10 also puts forward the waste hierarchy as a policy objective to help achieve sustainable waste management and address climate change. This principle is reaffirmed in the Waste Strategy for England 2007 and by regional and local policy, such as the Draft RSS for the South West and the PCCMWMS. 'Sustainability' is also a key theme of the PCS, with a number of Strategic Objectives, including; 1 (sustainable communities and renewable energy); 3 (sustainable communities); and 13 (sustainable waste management), focusing on sustainable development. Policy CS26 of the Core Strategy also sets out how sustainable waste management should be achieved, while CS20 and CS28 address sustainable use of resources and transport.

6.4.4 PPS4 sets the tone for sustainable economic development, noting that planning applications that secure sustainable economic growth should be treated favourably. PCS Strategic Objectives 2 and 6 focus on the economy, employment and regeneration, which is an important component of sustainable development.

6.4.5 The provisions of the Localism Bill give added weight in planning decisions to the importance of delivering on sustainable development objectives, which in the case of this planning application, include the wider energy and climate change, employment and economy and sustainable waste management benefits of the EfW CHP facility.

6.4.6 The sustainable (and carbon-efficient) generation and use of energy is promoted by PPS1 and the PPs1 Climate Change Supplement, RPG10 and the Draft RSS, while Strategic Objective 1 of the Core Strategy states that Plymouth should work towards carbon neutrality. The Plymouth Waste DPD policy W8 promotes energy efficiency and sustainability. Draft RSS policy RE3 also promotes sustainability through the use of renewable heat.

6.4.7 Sustainability themes relating to transport and minimising the climate change impact of managing waste are also put forward at all policy levels, with the need to manage waste in one of the nearest appropriate installations being a key planning objective of PPS10. Draft RSS policy W2 puts forward a sequential approach to the location of waste management facilities, with sites within urban areas at the top of the hierarchy.

6.4.8 Strategic Objective 11 of the PCS addresses the delivery of a sustainable environment. The Core Strategy also includes a number of policies aimed at minimising the environmental and amenity impacts of development, a theme that is developed further by policies W7 and W8 of the Waste DPD. Nationally, PPS10 prioritises the protection of human health and the environment in the delivery of sustainable waste management, and PPS23 addresses the complementary relationship between the pollution control and planning regimes. The environmental and amenity impact of development is therefore a key theme of policy.

Conclusion

6.4.9 Three main planning consideration themes clearly emerge from the analysis of relevant planning and other policy in Section 6.3. These themes are 'need', 'sustainable development' and 'environmental effects', including effects on amenity, people and the wider environment.

6.4.10 Chapter 7 of this Statement sets out an assessment of the development proposals against the main planning policy associated with 'need', Chapter 8 assesses the proposals against policy relating to 'sustainable development' and Chapter 9 considers the development relating to the policy theme of 'environmental effects and amenity impacts'. Chapter 11 of this PASS is a consideration of the compatibility of the proposals with policies W7 and W8 of the Plymouth waste development plan document.

7 Need

7.1.1 According to Defra data for 2009/107, currently landfill is the only significant means of managing residual municipal waste in the Partnership Area (i.e. waste collected by local authorities and which is not recycled or composted), and landfill capacity in Devon and Cornwall is limited to a permitted life of 2023. Although landfill extensions or new landfill sites may be viable, the SWDWP Joint Municipal Waste Management Strategy (JMWMS) states that 'enhanced diversion [of waste from landfill] is critical' and each council has identified a need to divert significant tonnages of waste from landfill, with Plymouth City Council anticipating exceeding its Landfill Allowance Trading Scheme (LATS) allowance from 2012/13; Torbay Council exceeding its allowance from 2015/14; and Devon County Council exceeding its allowance from 2016/17 in the absence of any new facilities.

7.1.2 The JMWMS is based on, amongst other things, an evaluation of the municipal solid waste (MSW) recycling and composting targets of the Partnership authorities. Achievement of these individual authority recycling and composting targets is dependent upon the successful implementation of existing and proposed systems for the collection and management of recyclable/compostable waste. The JMWMS modelled the recycling and composting performance of the combined Partnership area as being 42% in 2009/10, rising to a rate 51% by 2019/20 which exceeds the Waste Strategy for England 2007 target of 50% by the same date. The SWDWP Final Business Case subsequently updated the forecast recycling and composting performance of the Partnership authorities to 54.2% by 2019/20 and 55.9% by 2038/39, compared with an actual 2009/10 rate of 43.9%.

7.1.3 Table 7.1 summarises the latest data on waste arisings and residual waste in Devon and Cornwall as a whole, and within the SWDWP area. The data for C&I waste is taken from the Defra Commercial and Industrial Waste Survey 2009, and the data for MSW from Defra WasteDataFlow statistics8 and the SWDWP Final Business Case.

Table 7.1: Summary of Current Waste Arisings in the Region (2009/10)

		Waste Arisings (ktpa)	Recycled, Reused and Composted (ktpa)	Residual (ktpa)	of which landfilled (ktpa)
Devon & Cornwall	C&I Waste	1,064	558	507	269
	MSW	912	401	511	509
	Total	**1,977**	**959**	**1,018**	**778**
Devon (incl. Plymouth & Torbay)	C&I Waste	700	360	339	185
	MSW	613	289	324	321
	Total	**1,313**	**650**	**663**	**506**
SWDWP	C&I Waste	392	201	191	109

[7] http://www.defra.gov.uk/statistics/files/mwb200910a.xls
[8] http://www.defra.gov.uk/statistics/files/mwb200910a.xls

		Waste Arisings (ktpa)	Recycled, Reused and Composted (ktpa)	Residual (ktpa)	of which landfilled (ktpa)
	MSW	354	136[9]	218	191
	Total	**746**	**337**	**409**	**300**

7.1.4 SWDWP has estimated the quantities of MSW requiring treatment as being in the range of 168 – 203 ktpa, which is consistent with actual data for 2009/10 showing the total amount of SWDWP MSW not recycled is approximately 187 ktpa and assumes that the SWDWP recycling rate increases to 52.5% by 2014/1510 and 54.2% by 2019/20, in excess of the Waste Strategy 2007 target of 50% by 2019/20. Therefore, the amount of MSW forecast by the SWDWP to require treatment allows for recycling and composting initiatives that aim to exceed the targets set in Waste Strategy 2007.

7.1.5 MVV has signed a contract with SWDWP for treatment of residual MSW from the SWDWP area, with an estimated quantity of approximately 200 ktpa of MSW requiring treatment in 2038/39. In order to fully utilise the 245 ktpa capacity of the facility, MVV may seek to source an additional 45 of C&I waste in 2038/39, the majority of which is likely to come from the SWDWP area.

7.1.6 The Defra data summarised in Table 7.1 indicates that there is currently 191 ktpa of residual C&I waste generated in the SWDWP area which is not recycled, composted or reused. MVV's objective to source an around an additional 45 ktpa of C&I waste in 2038/39 would comprise approximately 24% of the current total, which is a reasonable commercial expectation, given the proximity of the facility to the main sources of commercial waste generation in Plymouth. Considering the whole of Devon, residual C&I waste arisings are 339 ktpa (see Table 7.1) and MVV's target of treating 45 ktpa of C&I waste represents 13% of the county's residual C&I waste arisings.

7.1.7 Chapter 3 of the ES provides a fuller consideration of the need for the EfW CHP Facility.

[9] SWDWP Final Business Case, Table 2.4
[10] SWDWP Final Business Case, Table 1.5

8 Sustainable Development

8.1.1 Relevant policy and strategy, including the development plan and national planning policy, sets out a number of policy objectives and principles that should be considered under the theme of promoting 'sustainable waste management' and 'sustainable development' in general. The main sustainable waste management and sustainable development issues that are addressed in the development plan and in national planning policy are listed below.

- Waste management options that accord with the waste hierarchy.
- Waste to be managed at one of the nearest appropriate installations and sustainable transport.
- Climate change and carbon management, including energy efficiency, energy recovery and combined heat and power (CHP).
- Sustainable land use and compatibility with spatial planning objectives.
- Promotion of sustainable communities, economy and environment.
- High quality design.
- Sustainable design and construction. The facility achieves a BREEAM Excellent rating in its BREEAM Pre-Assessment.

8.1.2 The remainder of this chapter addresses these issues in turn.

Waste Management Options That Accord with The Waste Hierarchy

8.1.3 The proposed EFW/CHP Facility is central to the delivery of the PCCMWMS, which sets out targets to increase the recycling of household waste to 30% by 2010 and 33% by 2015 and to reduce the proportion of municipal waste sent for disposed to landfill year on year. After recycling, Plymouth currently disposes of all municipal waste to landfill and as such the provision of an alternative disposal option is essential to contribute to achieving the regional target of less than 20% of waste being landfilled by 2020. Technical modelling undertaken to support the PCCMWMS demonstrates that energy recovery through the thermal treatment of waste is a cost efficient, low risk and sustainable solution to the need to divert residual waste from landfill.

8.1.4 The proposed development accords with the principles of the waste hierarchy as it will recover energy from waste that would otherwise be landfilled. The recovery of value from waste in terms of energy is further up the waste hierarchy than disposal, of which landfill is the least preferred option. Further, the proposed development would not have any negative impact on the waste minimisation and recycling as it would deal only with 'residual' waste, which is the material left over once the recyclable elements have been removed. The PCCMWMS sets out policies to increase waste minimisation through education, promote home composting, and

increase recycling through improved kerbside collections, bring sites and civic amenity recycling centres.

8.1.5 In addition, because the proposals include the delivery of combined heat and power to the Devonport Dockyard, they will make an additional contribution to tackling climate change, over and above the carbon emissions benefits of a traditional EfW scheme that would only provide power to the national grid by allowing existing fossil fuel plants in the Dockyard to be placed on "stand-by" and only used when the EfW plant is not operating. Whilst the waste hierarchy, as defined in Waste Strategy 2007 and PPS10, does not distinguish between CHP and none-CHP EfW schemes, the provision of CHP in this scheme, in accordance with government sustainable energy policy in PPS1, the PPS1 Climate Change Supplement and PPS22, and emerging EU policy that may require new thermal power generation to be combined with systems allowing the heat to be used, is a clear indication that the proposals are very firmly in accordance with the waste hierarchy. PASS Appendix 4 (Energy, Economy, Employment and Education Benefits Statement) provides a full description of the CHP benefits of the scheme.

Waste To Be Managed At One Of The Nearest Appropriate Installations And Sustainable Transport

8.1.6 The SWDWP has selected MVV's proposed EFW CHP Facility as the solution to deliver the Joint Municipal Waste Management Strategy[11] (JMWMS) of the Partnership authorities. The SWDWP, the JMWMS and the proposed EFW CHP Facility, are the culmination of many years work by the Partnership authorities to identify and evaluate alternative options for the management of municipal solid waste in accordance with European and national government targets.

8.1.7 As part of the Partnership's consideration of alternative options, options appraisal and modelling was commissioned by the SWDWP and carried out by Entec UK Ltd[12] on the following six options with respect to formulating a sub-regional solution:

1. "Do-Minimum" – disposal of residual waste to landfill.
2. Individually procured EfWs (a facility for each authority).
3. A single joint EfW located in Plymouth.
4. A single joint EfW and a joint AD facility for food waste treatment.
5. Three strategically located MBT facilities (including AD for the organic fraction), producing an RDF which is combusted in a joint RDF burner (located in Plymouth).
6. Three strategically located MBT facilities (including AD for the organic fraction), producing an RDF which is combusted in a merchant RDF burner (located in Runcorn, Cheshire).

8.1.8 The six options were developed based on the individual proposals of the partnership authorities, and a variety of different technology options, to reflect industry developments at that time, and to reflect a variety of spatial options that different combinations of technology

[11] South West Devon Waste Partnership (2008) *Plymouth, Devon and Torbay Joint Municipal Waste Management Strategy Statement.* Appendix 3D to SWDWP OBC.
[12] Entec UK Ltd (2008) *SWDWP – Waste PFI – OBC: Options Appraisal and Technical Modelling Assumptions.*

could offer. Spatial options included options involving the provision of several, dispersed facilities (of differing technology types) and options involving a single, centralised facility.

8.1.9 All six options underwent detailed modelling, undertaken by Entec, against various technical, planning, environmental, social, financial and economic criteria, as detailed in the Entec report. Further information on this process can be found in ES Chapter 5, Section 5.2. Informed by the results of the alternative options evaluation, the SWDWP selected option 3, a single joint EfW located in Plymouth, as its preferred option.

8.1.10 North Yard is located in the centre of Plymouth, close to where the majority of waste in the SWDWP area arises. MVV has undertaken an evaluation of waste travel-time associated with the proposed EfW CHP Facility at North Yard and a comparison with other potential EfW sites. This waste travel-time analysis (which is reported in Annex G to the Transport Assessment) demonstrates that, of the options considered, sites located in Plymouth involve the shortest travel time and of the available sites considered, delivering residual waste for treatment at North Yard involves the least waste travel time (and fewest waste miles).

8.1.11 On the basis of the above evidence, the proposed EFW CHP Facility at North Yard can be considered to be compatible with the national planning policy objective of managing waste at one of the nearest appropriate installations.

8.1.12 In selecting the North Yard site for the proposed EFW CHP Facility, MVV considered the potential to use more sustainable forms of transport than road to move waste and materials to and from the facility. However, MVV concluded that there are a number of operational and environmental factors that make the use of water or rail transport mode not practicable for the proposed development at this time. Broadly these issues are matters such as the absence of inter-modal transfer points where collected waste could be moved to rail or water, for onward transfer to the EFW CHP Facility, no access to the water-front at the military dockyard, and environmental difficulties in re-activating the former railway line in Blackies Wood. A fuller account of the consideration of alternatives to road transport is provided in ES Chapter 5, Section 5.5.

Alternative Sites

8.1.13 In addition to the consideration of alternative technology and spatial options carried out by the SWDWP, described above, the applicant considered potential alternative sites for development of the proposed EFW CHP Facility. A full account of this process is provided in ES Chapter 5, Section 5.3 and 5.4.

8.1.14 A list of potentially suitable sites for EfW development was identified, based largely on sites allocated for such uses in adopted development plans. Additional sites, identified on the basis of CHP potential, were also included for consideration. The potential alternative sites were evaluated against the site selection criteria used by Plymouth City Council to select sites for allocation in the Waste DPD, but these evaluation criteria were updated to take account of changes in national planning policy relating to the importance of managing climate change and maximising opportunities for CHP.

8.1.15 The evaluation of alternative sites concluded that the application site at North Yard offered a number of significant benefits and that no site outside the dockyard offered the same potential for deliverable CHP as the North Yard site. The site is centrally located within Plymouth, thus meeting all of the relevant development plan and national planning policy on the location of waste management facilities in relation to waste arisings. The main development part of the site is brown-field, previously developed land which is in accordance with the sequential test set out in PPS10, paragraph 20-21. An adjacent area of woodland offers an opportunity to develop a comprehensive landscape strategy, based on careful consideration of building orientation in relation to surrounding topography and land uses and major improvements to biodiversity in this area, which also offers an educational resource for visitors to the EfW CHP facility. There is also a good existing access point from the Strategic Road Network.

8.1.16 The evaluation concluded that there was no available alternative site which would not have similar, other, or lesser, adverse environmental effects, or more deliverable CHP, compared to the proposed EfW CHP development at North Yard, Devonport. The potential to supply CHP to the Dockyard and the opportunity, because of the specific North Yard location, to deliver major social and economic benefits to the Dockyard, its community and Plymouth as a whole, combined with a favourable evaluation against other environmental, amenity and sustainability criteria, led the applicant to select North Yard as its preferred location for the EfW CHP facility.

Climate Change and Carbon Management (Including Energy Efficiency, Energy Recovery and CHP)

8.1.17 One of the most important objectives of sustainable waste management is to reduce the contributing impact of this activity to climate change. Disposal of biodegradable waste to landfill results in emissions of methane, a powerful greenhouse gas which adds to global warming. Alternatively, recycling and recovery of energy from waste promotes the efficient and prudent use of natural resources and reduces consumption of fossil fuels, thereby reducing carbon emissions. By avoiding disposal to landfill; seeking high levels of energy efficiency, through for example, Combined Heat and Power (CHP) and increasing the amount of waste that is recycled, composted or has energy recovered, there is considerable scope for reducing greenhouse gas emissions and thus the contribution to climate change from the waste we produce.

8.1.18 The MVV EfW CHP Facility will incorporate CHP technology and thus achieve an average energy efficiency of 39%, compared with the expected 23% efficiency derived from a modern EfW plant without CHP. The combustion of waste will produce heat, which will be used to generate steam to drive a 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, thereby making best use of existing buildings and infrastructure.

8.1.19 WRATE modelling has established that the proposed MVV facility results in an offsetting of -34,625 tonnes CO2 equivalent (tCO2eq) emissions. This can be compared to a net burden of +38,879 tCO2eq from the baseline, landfill only scenario. Overall the WRATE model calculates that the EfW CHP Facility will deliver a reduction of 73,504 tCO2eq per year.

8.1.20 The Energy, Economy, Employment and Education Benefits Statement and the Climate Change and Sustainability Statement provide full details of the climate change and CHP-related benefits of the proposed EfW CHP Facility.

Sustainable Land Use and Compatibility with Spatial Planning Objectives

8.1.21 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, thus qualifying for the definition of 'previously developed land' under PPS3, Annex B. Most recently the Site was used for the processing of demolition rubble, under planning permission 04/01974 dated 30/12/2004. Previous planning permissions for the Site are summarised in section 4.2 of the PASS. The planning application boundary also extends around the biodiversity network feature and local Greenscape area that is locally known as 'Blackies Wood', which will be managed for biodiversity and offered as an educational resource to groups visiting the facility. Full details of compatibility with sustainable land use policies that are established in Policy W7 of the Waste DPD are provided in Section 11 of this Planning Application Supporting Statement.

8.1.22 Local spatial planning objectives are set out in the Plymouth Core Strategy (2007), which establishes 13 strategic objectives. Section 11 of this Planning Application Supporting Statement provides an assessment of the compatibility of the EFW CHP Facility proposals with the Core Strategy strategic objectives, concluding that none of the objectives are compromised by the proposals, which will in fact make a significant contribution to delivering many of the objectives.

Promotion of Sustainable Communities, Economy and Environment

8.1.23 The promotion of sustainable communities, economy and environment depends on achieving the right balance between the health of the economy, local social needs and the protection of the environment. The strategic objectives of the Plymouth Core Strategy cover the full range of sustainable community and environmental issues that are relevant to development and in turn these objectives are expressed in the policies of the LDF. Appendix 7 to this PASS includes a detailed consideration of the compatibility of the EfW CHP Facility proposals with the policies of the LDF, and with national planning policy. Section 11 of this Planning Application Supporting Statement considers in detail the compatibility of the proposals with the strategic objectives of the Core Strategy. Table 8.1 provides a summary of how the EfW CHP Facility will promote a sustainable local community and environment and in doing so, help to achieve many of the Plymouth City strategic objectives.

Table 8.1 Summary of the Potential Contribution of the EfW CHP Facility to the Achievement of Plymouth Core Strategy Spatial Planning Objectives

SPATIAL PLANNING OBJECTIVE	CONTRIBUTION BY EFW CHP FACILITY
1. Delivering 'Urban Renaissance' and Sustainable Communities, including working towards carbon	Sustainable waste management solution.

SPATIAL PLANNING OBJECTIVE	CONTRIBUTION BY EFW CHP FACILITY
neutrality.	Reduction of greenhouse gases and production of low carbon electricity and heat. Development on a vacant Brownfield site with a high quality building.
2. Quality employment provision and supporting regeneration and diversification.	Creation of direct and indirect jobs and attraction of inward investment to support Dockyard regeneration.
3. Delivering sustainable linked communities	Provision of recreation facilities and education resource contribute to a thriving, mixed-use community.
4. The quality of new development	Iconic and elegant design proposals and the use of high quality building materials.
6 (1) protection and enhancement of the City's unique assets	EIA concludes no significant adverse effects on environmental or heritage assets.
6 (2) delivering a range, mix and quality of employment land/premises to provide for inward investment opportunities and **6 (3)** covers opportunities for employment in each neighbourhood.	Creation of direct and indirect jobs and attraction of inward investment to support Dockyard regeneration.
6 (4) developing Plymouth's skills base / supporting investment in learning infrastructure / promoting local labour on major construction projects.	Priority to be given to local labour force, where possible, including local labour agreements. Discussions with local colleges about apprenticeships. On-site learning resources proposed.
6 (6) seeking consistency with the Plymouth Local Economic Strategy	Broad consistency with the six aspirations of the Economic Strategy.
7 the delivery of adequate shopping provision and includes a sub-objective of the promotion of a new food-store as part of a new district centre in the Weston Mill area.	EIA predicts no significant adverse effects that could prejudice Weston Mill District Centre.
9 the delivery of educational improvements.	The proposals include a community and educational facility within the EfW CHP site, which will become a major learning resource. Provision of support for higher education training and apprenticeships.
11, Delivering a Sustainable Environment, including nine sub-objectives relating to the goal of maintaining a clean and sustainable environment.	Provision of extensive area of woodland, managed for biodiversity and replacement of fossil-fuel based dockyard heat generators.
13 the objectives for the delivery of sustainable waste management in Plymouth	Provision of a facility that allows the SWDWP authorities to meet targets for diverting waste away from landfill, whilst being compatible with waste reduction, recycling and composting targets.

SPATIAL PLANNING OBJECTIVE	CONTRIBUTION BY EFW CHP FACILITY
14 the delivery of sustainable transport	TA and EIA demonstrate that, with appropriate mitigation, there will be no significant adverse effects on highway capacity and the environment from traffic impacts, respectively.
15 the delivery of community well-being.	EIA demonstrate no significant adverse effects on health and wellbeing and several positive benefits, including enhanced green recreation space and community facilities.

High Quality Design

8.1.24 The design of the building has evolved through a process which commenced with a landscape and urban design study to establish the context of the site and a consideration of national and local planning policy, including the Design SPD. Initial design proposals were the subject of consultation with the South West Design Review Panel and with Plymouth City Council Planning Authority. The proposed design responds to the setting of the building, at the interface of the industrial Devonport Dockyard and the residential communities of Barne Barton and Kings Tamerton & Weston Mill and Keyham. Recognising that the EFW CHP building cannot be hidden, the design response is an extremely high quality building, employing a basic philosophy of an elegant but close wrapping of the EfW machine and respect for the surrounding environment, aimed at minimising scale whilst maximising the acceptance of the building by the communities of Plymouth.

8.1.25 The proposed design is fully in accordance of the objectives of PPS1, PPS10, the Defra guidance on 'Designing Waste Facilities' and with the Plymouth City Council Design SPD. A full description of the design evolution process and compatibility with design planning policy is provided in the Design and Access Statement, a summary of which is provided in Section 10 of this Planning Application Supporting Statement.

Sustainable Design and Construction

8.1.26 Sustainable design and construction means using natural resources as efficiently and sustainably as possible; reducing energy and water consumption through building design and location, adopting sustainable urban drainage systems and minimising the consumption and extraction of minerals by making the greatest possible reuse or recycling of materials in new construction. Better use of inert waste materials, particularly construction and demolition waste to substitute primary materials, is identified as key to the reduction of waste nationally.

8.1.27 The MVV EfW CHP Facility is designed not just to maximise energy recovery but to maximise the recovery of other useful resources from the residues. Bottom ash will be processed to provide an aggregate for road building and construction thus saving on primary aggregate. Waste water generated from the process facility will be reused to make up the water lost in the Incineration Bottom Ash (IBA) quenching system. Rainwater collected from building roofs and walls will be discharged to a SuDS system.

8.1.28 The MVV facility achieves a BREEAM Pre-Assessment rating of Excellent, demonstrating its sustainable design and construction credentials. For example, these include energy saving measures (electricity sub-metering, energy efficient lighting and lifts, electricity load of the development being met by energy derived from waste); water conservation measures (water efficient sanitary fittings, water meter, leak detection system and sanitary supply shut off) and Green Guide specification of materials (e.g. at least 80% of the combined area of external hard landscaping and boundary protection specifications will achieve an A or A+ rating, suppliers will be selected which operate environmental management systems, or are able to demonstrate their environmental credentials, and responsible sourcing).

8.1.29 PPS10 encourages implementation of Site Waste Management Plans during construction, to help in identifying the type of material to be demolished and/or excavated, opportunities for re-use and recovery and to demonstrate how off-site disposal will be minimised and managed. Sustainable waste management methods to be applied when dealing with the construction waste arising are set out in the Outline Site Waste Management Plan (SWMP) prepared by the contractor Kier. The building layout has been designed to make best use of the site and its topography and cut and fill will be balanced to minimise removal of material. Materials arising from demolition and excavation activities will be re-used on site as far as practicable including for example as backfill and for landscaping. Concrete and tarmac arising from demolition can be treated to produce high quality aggregates and re-used on site. 40,331 Cubic metres of waste are anticipated to be generated as a result of demolition, excavation and construction, of which 32,900 cubic metres are proposed to be re-used on site and 5,618 cubic metres recycled.

9 Environmental Effects and Amenity Impacts

9.1.1 This planning application is accompanied by an Environmental Statement (ES), which is a report of the environmental impact assessment of the development proposals. The content of the ES accords with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended).

9.1.2 The scope of the EIA was agreed formally with the Planning Authority through the request for and receipt of a Scoping Opinion. Copies of the Scoping Report and the scoping opinion can be found at Appendices 2.1 and 2.3 of the ES respectively.

9.1.3 Table 9.1 provides a list of the environmental issues that are relevant to the proposed development at the specific site and of the associated relevant development plan and national planning policy. It also cross-refers to the ES chapter which describes how the policy has been addressed as part of the assessment of potential environmental effects of the proposed development.

Table 9.1 Environmental Effects and Policy

Environmental Issue	National Planning Policy	Plymouth City Core Strategy	Plymouth Waste DPD	ES Reference
Ecology	PPS9	CS18, CS19	W7, W8	Chapter 7
Landscape and Visual	PPS1	CS02, CS18, CS22, CS34	W7, W8	Chapter 8
Cultural Heritage	PPS5	CS03	W7, W8	Chapter 9
Contamination – Land and Water Quality	PPS23		W7, W8	Chapter 10
Hydrology, hydrogeology and flood risk	PPS25, PPS23	CS20, CS21, CS22	W7, W8	Chapter 11
Traffic and transport	PPG13	CS02, CS28	W7, W8	Chapter 12
Air quality	PPS23	CS22, CS34	W7, W8	Chapter 13
Noise and vibration	PPG24	CS22, CS34	W7, W8	Chapter 14
Construction waste	PPS10	CS20, CS26	W8	Chapter 15
Daylight, sunlight and overshadowing	PPS1	CS34	W7, W8	Chapter 16
Socio-economics	PPS1, PPS4, PPS10	CS04, CS05	W7, W8	Chapter 17
Health and Wellbeing	PPS23		W7, W8	Chapter 18

Summary of Environmental Effects and Amenity Impacts

9.1.4 The ES reports on the assessment of environmental effects under a series of topic headings as listed below:

- Ecology
- Landscape and visual effects
- Cultural heritage
- Land and water quality
- Water 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

9.1.5 A summary of the findings of these assessments is set out in the following sub-sections.

Ecology

9.1.6 The impact of the proposed EfW CHP development on ecology and nature conservation has been assessed through desk study and site survey. Detailed surveys for habitats, reptiles and breeding and wintering birds were carried out.

9.1.7 During construction, existing habitat of value to reptiles and the Black Redstart bird will be lost. However, these losses will be compensated for by the careful movement of the reptiles outside of the construction area and through the construction of a 'brown roof' on top of the new workshop building which will provide suitable Black Redstart habitat.

9.1.8 Two mature trees need to be felled as a result of the proposed development, but these have been surveyed and the loss is not considered to be significant. Tree felling and shrub

clearance is to be undertaken outside of the bird nesting season or under the supervision of an ecologist.

9.1.9 There are expected to be beneficial effects on biodiversity through the enhancements and management proposed for Blackies Wood, including a new pond; the replacement of two existing culverts crossing Weston Mill Stream with a new clear span bridge; and the cleanup of existing general rubbish from the stream.

Landscape and Visual Effects

9.1.10 A comprehensive landscape and visual impact assessment has been undertaken.

9.1.11 The main development site is largely derelict and unused. Close views of the existing site are degraded by a combination of open storage and large exposed surfaces within the site itself and industrial dockyard buildings (and associated activity) on the adjacent land. The site benefits from a relatively high degree of enclosure to the north resulting from the existing topography and the extensive woodland, combined with earth bunding and a woodland buffer caused by the railway line to the east, and MoD land and buildings to the south.

9.1.12 The Waterfronts and dockyards have a strong influence on the character of the surrounding areas through the introduction of massive scale components; these are complimented 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 AONB, South Devon AONB and the Tamar Valley AONB. To some extent these landscapes have already adapted to the influence of the contemporary land uses, including large-scale dockyard and industrial activities.

9.1.13 A detailed landscape masterplan has been developed. The overall objective of the early landscape works is to provide woodland enhancements and partial avenue screening to the north of the site through Blackies Wood to ensure that all existing trees are retained, except for the two which are known to need removal. The mitigation proposals for the EfW CHP facility are designed to integrate the proposed development into its landscape setting, whilst at the same time minimising the adverse effects on landscape character and views.

9.1.14 In accordance with the described assessment methodology, effects assessed as significant in EIA terms, are those classified as either major, or moderate. A summary of the likely significant adverse effects on landscape character areas and visual receptors is set out below.

<u>Landscape Character: During Construction, Years 1 And 15</u>

9.1.15 During construction there will be temporary significant adverse effects on one LCA (2b, Inland Rias).

9.1.16 Upon completion of construction, the proposed development will result in no significant adverse effects on landscape character. There will be significant beneficial effects to LCA 2b.

Visual Amenity: During Construction

9.1.17 It is considered that the operation of the EfW CHP facility during construction will result in significant adverse effects on one residential visual receptor at no. 3: Talbot Gardens. This is set in the context of existing Dockyard views but is considered significant.

Visual Amenity: Year 1

9.1.18 It is considered that the operation of the EfW CHP facility at Year 1 will result in significant adverse effects on two residential visual receptors no. 4: Savage Road and no. 6: Cardinal Avenue. This is set in the context of immature mitigation planting and in the context of existing panoramic dockyard views respectively.

Visual Amenity: Year 15

9.1.19 The operation of the EfW CHP facility will continue to result in significant adverse effects on the residential visual receptor no 6: Cardinal Avenue, however future development of the dockyards will lead to this being less significant than at Year 1.

Conclusion on Landscape and Visual Effects

9.1.20 Since the assessment has identified some significant visual effects, it is essential that the tall, built elements of the scheme should have taken account of Plymouth City Council's (PCC) Core Strategy, Strategic Objective 2: Design. In line with the expectations of LDF Policy CS02: Design, the new development is well designed to respect the character, identity and context of Plymouth's historic townscape and landscape and in particular Plymouth's unique waterfront, its local settlement pattern and wider moorland setting and nearby Tamar AONB.

9.1.21 Although the building will result in changes to important local and longer-distance views due to its large scale, it will also protect those views because of its striking design in terms of its form, massing, detailing, materials and colours. In this way it will promote the image of the City, through enhancement of important gateway locations and key approach corridors, such as from the railway, and from the River Tamar. Overall, therefore, it will contribute positively to the area's identity and heritage in terms of scale, density, layout and access, and additionally, at the local level, it will have public and private spaces that are safe, attractive, and accessible; and complement the built form.

9.1.22 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. Furthermore, the landscape proposals within the development area of the site will soften and assist in integrating

the building into this sensitive setting comprising an unusual combination of potentially conflicting uses in the form of woodland, residential land and the industrial dockyard.

9.1.23 The combination of built form, new landscape and management of existing landscape features will ensure that the scheme positively contributes to the townscape, landscape and biodiversity of the local environment.

9.1.24 It is therefore considered that such details are appropriate and sufficient to overcome the adverse visual effects classified by the EIA methodology as significant. Overall, despite its visual prominence from some locations, it is therefore considered that the proposed scheme is in line with Core Strategy Policy CS34 in that it 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.

Cultural Heritage

9.1.25 The potential impact of the proposed facility on the cultural heritage resource has been assessed. Cultural heritage in this context comprises archaeological assets, the built heritage and the historic landscape.

9.1.26 It is anticipated that there will be no direct physical impacts on known archaeology and built heritage arising from construction and operation of the EfW CHP facility. Impacts would be limited to changes in the setting of archaeological and cultural heritage assets.

9.1.27 The proposed development would have an effect of minor adverse significance on the setting of the following four Scheduled Monuments: Mount Pleasant Redoubt, Battery at Wearde Quay, Civil war Breastwork at Inswork and Ballast Pond at Torpoint.

9.1.28 The proposed development would have a minor adverse effect on the setting of three Registered Parks and Gardens, namely Devonport Park, Mount Edgcumbe Park and Antony Park.

9.1.29 The proposed development would have an effect of moderate adverse significance on the setting of four Grade II Listed structures, namely Building 124 (Mixing House) located approximately 200m west; and three buildings within HMS Drake, located approximately 300m south.

9.1.30 The proposed development incorporates a comprehensive landscaping scheme which will minimise as far as possible effects on the setting of archaeological, built heritage and historic landscape features. The proposed development site is also well placed at the northern end of Devonport naval dockyard as it is partially screened by natural topography to the north and west and by the built environment to the east and south, including the railway embankment and viaduct, which will help to mitigate landscape setting issues. There is no specific cultural heritage mitigation required.

Land and Water Quality

9.1.31 An assessment has been made of the existing land and water quality at the site, based on desk-based research and on-site sampling and chemical analysis conducted in 2010, and the potential impacts that could occur as a result of the proposed development.

9.1.32 Previous activities / land uses have led to some contaminants being present within the ground and groundwater, although there is not widespread contamination. Ground works will potentially expose these contaminants. However, risk to nearby residents has been as assessed as being very low and the use by construction contractors of personal protective equipment, such as gloves and dust masks, during ground works will adequately protect their health and safety.

9.1.33 There is potential for contaminants exposed during ground works, or fuels / chemicals brought on to site and accidentally spilled, to pollute the nearby Weston Mill Stream and River Tamar. However, good site drainage, controls and working practices will be employed to greatly reduce the risks such that they are not expected to be significant.

9.1.34 Low levels of methane gas have been found in some of the samples taken during the ground investigation. It is most likely that these are derived from the decomposition of natural organic matter beneath the site – the site is on reclaimed land, formerly a creek. Ground works, in particular the drilling of piled foundations, may create 'pathways' for any ground gases present to rise up over time into the EfW CHP facility. However, further monitoring would occur during construction, and if required systems could be installed to collect and safely vent gas away from the building.

9.1.35 Overall, it is considered that provided appropriate measures are employed during each phase of the development, the proposed EfW CHP facility will not pose an increased risk to human health or the environment in terms of land and water quality.

Water and Flood Risk

9.1.36 The site is located adjacent to Weston Mill Stream, which flows to Weston Mill Lake, a tidal water body connected to the Tamar Estuary.

9.1.37 The flood risk assessment demonstrates that the majority of the application site – including the entire central part of the site on which the EfW CHP facility will be constructed – is located within Flood Zone 1, land considered to have a low risk of flooding. A small section of land in the vicinity of the railway viaduct is located within Flood Zone 2 due to it being situated at a lower level. However, the section of new access road which will pass through this area will be built up slightly to mitigate for this.

9.1.38 The project will involve replacing the two existing access bridges over Weston Mill Stream, which are culverts, with a single clear-span bridge. The flood risk assessment demonstrates that this will have a negligible impact on flood levels upstream and downstream.

9.1.39 As the proposed development will result in an increase in the hardstanding area on site compared with existing conditions, surface water runoff from the site will increase. A surface water drainage strategy has been designed to manage the flow of water such that it neither poses a flood risk to the development itself nor to third parties off site.

9.1.40 A number of potential impacts could in theory occur to the nearby stream and groundwater as a result of the construction and operation of the proposed EfW CHP facility. Potential impacts include soil, silt, etc being washed into the stream during heavy rainfall and accidental spillage of fuels, chemicals, etc. However, by employing appropriate construction techniques and good design principles these risks will be successfully mitigated.

9.1.41 The significance of the identified effects and their likelihood of occurrence has been systematically evaluated and mitigation measures for each of the impacts have been identified. When taking into account the mitigation measures, all effects for the construction and operation of the proposed EfW CHP facility can be mitigated to a minor level or less. Furthermore, when taking into account the likelihood of such effects occurring, which in all cases is low or unlikely, the associated risks are reduced to low or very low.

Traffic and Transport

9.1.42 A detailed traffic and transport assessment has been undertaken, including surveys of existing traffic movements on local roads / junctions and computer modelling of the potential traffic and transport impacts of the proposed EfW CHP facility.

9.1.43 Table 9.2 summarises the expected daily vehicle movements associated with the facility. The table includes traffic arising from:

- Delivery of waste;
- Delivery of chemicals required for the air pollution control system, etc;
- Dispatch of incinerator bottom ash and air pollution control residues;
- Staff arriving and departing from work.

9.1.44 'Two-way movements' means one heavy goods vehicle arriving at the facility and that same vehicle then leaving the facility.

Table 9.2: Number of Vehicles Arriving at and Departing from the Facility Daily

Time	HGV Two-Way Movements	Staff	Combined Total
05:00-06:00	-	5	5
06:00-07:00	-	5	5
07:00-08:00	-	9	9
08:00-09:00	18	11	29
09:00-10:00	20	0	20
10:00-11:00	34	0	34
11:00-12:00	32	0	32
12:00-13:00	24	0	24
13:00-14:00	30	5	35
14:00-15:00	46	5	51
15:00-16:00	30	4	34
16:00-17:00	16	9	25
17:00-18:00	12	7	19
18:00-19:00	2	0	2
19:00-20:00	-	0	0
20:00-21:00	-	0	0
21:00-22:00	-	5	5
22:00-23:00	-	5	5
Total	**264**	**70**	**334**

9.1.45 The existing morning peak hour at the Camel's Head junction and on the northern access road to the Dockyard is between 07:00 and 08:00. The proposed EfW facility will not be open to receive waste deliveries until 08:00. The traffic and transport assessment shows that there is expected to be a negligible impact on the roads links assessed. In the morning and afternoon peak hours (08.00 – 09.00 and 16.00 – 17.00) the increase in vehicles equates to 1% or less on the following road links:

- Weston Mill Drive – North of Carlton Terrace
- Weston Mill Drive – Between Carlton Terrace and Wolseley Road
- Wolseley Road – West of Weston Mill Drive
- Wolseley Road – Between Weston Mill Drive and Saltash Road

- Wolseley Road – East of Saltash Road
- Saltash Road – South of Wolseley Road

9.1.46 The greatest level of impact is expected to occur along the MoD's Northern Access Road, which will form the sole connection between the public highway network and the site access. Percentage impacts of 8.6% and 2.9% have been calculated for the morning and afternoon peak hours respectively. In real terms, this is equivalent to an increase in vehicle movements of 8 and 26 in the morning and evening peaks respectively, which is not significant and can be safely accommodated by the Northern Access Road.

9.1.47 Three local road junctions have also been analysed. Both the Wolseley Road / Saltash Road junction and the Wolseley Road / Weston Mill Drive junction would continue to operate within their operational capacity thresholds with the additional traffic from the EfW CHP facility; the facility would make a marginal difference and queue lengths would be very similar. In the morning peak (08:00 to 09:00) the Weston Mill Drive / Carlton Terrace junction will also continue to operate within its operational capacity threshold with the additional traffic from the EfW CHP facility; again the facility would make a marginal difference and queue lengths would be very similar. In the afternoon peak (16:00 to 17:00) the Weston Mill Drive / Carlton Terrace junction is predicted by 2014 to operate slightly in excess of its design capacity even without the additional traffic from the EfW CHP facility; the facility would bring additional traffic but would make a marginal difference and queue lengths would be very similar. It is not considered that this is a significant effect.

Air Quality

9.1.48 An air quality impact assessment has been undertaken, including taking air quality samples at a number of locations over a six month period, and computer modelling of emissions from the EfW CHP facility chimney and traffic, both on the site and on adjoining roads leading to the site.

9.1.49 There are few existing significant sources of industrial emissions to air around the site. However, the proposed development is not far from a number of heavily trafficked roads, including the A3064 Wolseley Road / Weston Mill Drive.

9.1.50 A comprehensive suite of controls on emissions to air will be implemented as an integral part of the design of the EfW CHP facility, and the design of the facility incorporates Best Available Techniques in order to comply with the stringent requirements of the European Waste Incineration Directive.

9.1.51 The air quality modelling has established that a chimney in the range of 85 m to 95 m in height would deliver the required air quality mitigation benefit, without giving rise to other undesirable effects. Through the public consultation process, including road show events, MVV were made aware of some local residents' preference for air pollutants to be released from as tall a chimney as possible. The decision was taken by MVV to progress the design and the planning application based on a chimney height of 95 m above local ground level.

9.1.52 The combined impact of emissions to air from the EfW CHP facility chimney and from traffic movements, both on the site and additional traffic movements on adjoining roads, would not result in any significant effect at nearby residential properties, schools, hospitals or other locations.

9.1.53 Also, no significant air quality effects are predicted on designated ecological sites.

Noise and Vibration

9.1.54 Measurements of existing noise levels have been carried out in the area. Calculations have then been undertaken to assess the noise arising from the EfW CHP facility, the traffic servicing it, and the construction works, in order to assess the effects.

9.1.55 The construction contractor will follow best practicable means to minimise construction noise impacts upon the local community, including adherence to PCC's Code of Practice and applicable British Standards. Construction noise levels have been calculated at a representative set of residential properties. The assessment has shown that for the major part of the construction works, noise levels at surrounding properties will be below the proposed limits. However, for some construction activities, when working close to properties on Talbot Gardens, the noise limits will be exceeded for short durations. This will be mitigated where practical by the use of temporary noise barriers around noisy activities.

9.1.56 The EfW CHP facility has been designed to minimise operational noise levels as far as is practicable, through the selection of low noise plant items and the selection of wall cladding, roof cladding and ventilation openings to minimise noise breakout from the plant buildings. In addition a 3 m high acoustic fence will be installed along the access road. Operational noise levels have been calculated at a representative set of residential properties, employing a complex computer model of the proposed EfW CHP facility and the surrounding landform and buildings. The assessment shows that noise levels at nearby properties will achieve, or be below, the target noise levels, so the overall effects would be low to negligible.

Construction Waste

9.1.57 An assessment has been undertaken to characterise the nature and likely amount of waste generated during the construction of the EfW CHP facility and the consequential environmental impacts. Kier, the civil engineering contractor, has produced a Site Waste Management Plan, which has calculated the types and amounts of construction waste and whether the waste will be re-used, recycled or sent to landfill. The intention is to manage waste as high up the Waste Hierarchy as possible. It is expected that the majority of the waste arising will be re-used on site or sent off site for recycling. Only small quantities are likely to be sent for disposal to landfill. Any hazardous waste arising will be dealt with by a specialised hazardous waste operator. No significant environmental effects are envisaged.

Daylight, Sunlight and Overshadowing

9.1.58 An assessment has been undertaken of the impacts of the proposed EfW CHP facility on the daylight and sunlight levels received by existing neighbouring properties and the levels of shadow experienced within existing woodland and amenity space and proposed landscaping within the site. The assessment concluded that the proposed development will not result in any unacceptable impacts in relation to daylighting, annual and winter sunlight availability and overshadowing. The proposed development complies with the relevant guidelines published by the Building Research Establishment.

Socio-economics

Background

9.1.59 Plymouth has a distinctive economy and history, based largely on its seafaring tradition and strong links with the military. The maritime and defence sectors continue to play a significant role in the local economy. As with many other areas of the economy these sectors have come under increasing pressure due to the recession, public expenditure cuts and subsequently have experienced job losses. In recent years Plymouth has continued to diversify its economic base and developed a local strategy to focus on six priority sectors including advanced engineering, marine and renewables, business services, creative industries, health and medical, and tourism and leisure.

9.1.60 The Plymouth economy under-performs on a range of measures, notably Gross Value Added (GVA), where performance is below the regional and national averages. This is due to the sectoral mix of the economy; particularly the high dependence on the public sector, poor productivity levels in other sectors, lower levels of participation in the labour market and a low level of new business creation. The Plymouth economy has made significant progress over the past ten years with its performance improving on a range of different metrics. This includes an improved performance on the skill levels within the workforce, an increase in the number of new businesses and an improvement in the economic dynamism of the Plymouth economy as a whole. Having said this, Plymouth still lags behind many of the key towns and cities in the South West.

9.1.61 To address this gap in economic performance requires a series of measures including sustaining the increasing numbers of new business starts and new employment, securing high-value added sector growth, improving the productivity of existing businesses and maintaining and diversifying the industrial base particularly where there are opportunities to exploit the potential of climate change and low carbon markets and technologies.

Job Creation

9.1.62 MVV and its contractors have made detailed estimates of the construction costs of the project, a proportion of which will comprise labour costs. There will be approximately 309 construction workers on-site during the peak (October 2013) of construction activity.

9.1.63 MVV has also calculated that the operational phase will generate 33 full-time jobs. The following posts will be created: Financial Director, Technical Director, Administrator / Receptionist, Community Liaison Manager, Contract Manager, Financial Manager, Energy Manager, Health, Safety and Environmental Manager, Operations Engineer, Maintenance Engineer, Tipping Hall Supervisor / Weighbridge operator, Shift Team Leaders (control room), Plant Operators, Crane Operators, Consumables & Residues Operator, Mechanic, and Electrician.

Other Economic Benefits

9.1.64 There are a range of important benefits which the EfW CHP facility is expected to bring to the Plymouth and local neighbourhoods, including:

- By offering an alternative to landfill the EfW CHP facility will help to significantly reduce the cost of waste disposal for the SWDWP authorities. Evidence suggests that savings generated through the use of the EfW CHP facility would amount to £60M over the landfill alternative, over the 25-year lifetime of the contract. In addition the partner authorities will receive a PFI grant worth £177M.
- Savings on energy costs and reduced carbon emissions for the naval base and dockyard, and in future potentially other businesses.
- Supplying heat to the proposed Help for Heroes recovery facility for injured armed forces personnel.
- Safeguarding and creating further employment in the dockyard.
- MVV and Kier will actively promote and assist City College Plymouth, the University of Plymouth and other institutions to recruit and support through work placements and internships future apprentices, undergraduates and graduates.
- Potential future roll-out of district heating and reduced expenditure on energy for low income households in neighbourhoods close to the proposed development.

9.1.65 It is considered that the proposed development would have an overall beneficial impact on Plymouth and the South West's economies, through a range of different effects including new employment, supply chain benefits, increased local income, cost savings to businesses, households and the MoD, alongside wider carbon savings. The proposed development will also have beneficial impacts on land use.

Health and Wellbeing

9.1.66 It is widely perceived that the EfW CHP facility could potentially impact on the health and well-being of local communities, which are directly associated with air quality, noise and traffic.

9.1.67 The current body of evidence as reported by the Health Protection Agency in 2010 and by the Department of Environment, Food and Rural Affairs in 2004 demonstrates very clearly that the

operation of a modern, well managed EfW facility within any urban centre in the UK is likely to cause a very small, if detectable, effect on the health of those living in the surrounding area.

9.1.68 The health and well-being assessment conducted by Scott Wilson for the proposed EfW CHP facility shows that emissions to air would not result in a significant impact at residential properties, schools, hospitals or other locations. The assessment of the effect of the emissions on human health, using the Department of Health Committee on the Medical Effects of Air Pollution (COMEAP) assessment methods, has demonstrated that predicted impacts do not represent a significant health risk to the local population.

9.1.69 The construction and operation of the EfW CHP facility may also be perceived to have the potential to impact on the social determinants of mental well-being. Various aspects of the proposed development itself and of MVV's ethos seek to have a positive impact on well-being. These measures include those to reduce the impact of emissions to air, noise and traffic as far as possible, and the establishment of a Local Liaison Committee.

Inter-relationships and Cumulative Effects

Cumulative Effects of EfW CHP Facility

9.1.70 The way that the effects of the proposed EfW CHP facility have the potential to combine together to cause 'cumulative' effects with one another at certain sensitive locations and lead to significant effects has also been assessed.

9.1.71 For the residents of properties on Talbot Gardens, there would throughout the construction period be a significant visual effect due to direct views over the construction compound. There may be short term occasions during construction when there are also dust and noise impacts, which for these short term periods could combine to cause significant cumulative effects, although this would be expected for any construction project.

9.1.72 For the residents of properties 91-138 Savage Road, again there may be short term occasions during construction when there are dust and noise impacts, which for these short term periods could combine to cause significant cumulative effects, although this would not be unexpected for any construction project.

9.1.73 These effects are estimated to be short term, mainly during construction, and no other properties are expected to experience significant cumulative effects.

Cumulative Effects with Other Proposed Development Projects

9.1.74 The potential for effects of the EfW CHP facility to combine with effects from other proposed development projects in the vicinity and lead to significant effects has also been assessed.

9.1.75 Both the proposed EfW CHP facility and the proposed Devonport Landing Craft Collocation Project (DLCCP) commit to cleaning up litter, rubble, etc in Weston Mill Stream so there are expected to be some beneficial cumulative effects on ecology in this respect.

9.1.76 The construction periods for the proposed EfW CHP facility, Help for Heroes accommodation block, proposed Help for Heroes rehabilitation centre and the proposed DLCCP project are likely to overlap for a time during 2012. Additional traffic in the Camel's Head area can therefore be expected during this period. A Framework Construction Staff Travel Plan has been prepared and efforts will be made to minimise as far as possible construction traffic effects resulting from the EfW CHP facility.

9.1.77 Operational traffic from the proposed EfW CHP facility, the proposed DLCCP and the proposed Weston Mill District Centre have been modelled in the traffic and transport assessment. The Weston Mill Drive / Carlton Terrace junction is currently operating over its design capacity and all three projects would cause additional traffic to pass through this junction. The contribution of the proposed EfW CHP facility traffic would be low.

9.1.78 The various proposed developments will bring new facilities and jobs to the area so in combination there are considered to be significant beneficial cumulative effects in this respect.

Environmental Effects - Conclusions

9.1.79 The Environmental Statement includes an assessment of all of the potentially significant environmental effects that could be caused by the proposed Energy from Waste Combined Heat and Power Facility. The scope of the ES has been confirmed by a formal scoping opinion from Plymouth City Council as the Waste Planning Authority. The ES scope and methodology is also consistent with development plan policy and national planning policy.

9.1.80 The ES concludes that, with the implementation of the proposed mitigation measures, the majority of the environmental effects of the proposed development will not be significant. The ES identifies some potentially significant adverse effects on visual amenity for a limited number of local receptors during construction and operation, but the ES concludes that the combination of built form, new landscape strategy and management of existing landscape features are appropriate and sufficient to overcome the adverse visual effects classified by the EIA methodology as significant. The assessment finds that, whilst construction noise could cause some short-term, localised significant adverse effects, where it is practical to implement, mitigation in the form of noise barriers close to the construction activity will reduce noise effects to low or negligible significance.

9.1.81 The environmental impact assessment findings, as reported in the ES, demonstrate that the proposed Energy from Waste Combined Heat and Power Facility is therefore consistent with planning policy which seeks to protect the environment and amenity. A detailed consideration of compatibility with the main relevant environmental protection policy in the local development plan (the Waste development plan document Polices W7 and W8) is provided in Chapter 11 of this PASS.

10 Summary of Supporting Documents

10.1 Design and Access Statement (Appendix 1)

10.1.1 The Design and Access Statement (DAS) (which forms Appendix 1 to this PASS) was prepared to meet the statutory requirements for this type of planning application and to respond to and demonstrate compatibility with relevant planning policy and guidance, including local design policy in the Plymouth design supplementary planning document.

10.1.2 The design process commenced with an appraisal of the site and the surrounding area and this is described in Section 3 of the DAS. This site appraisal was led by a Landscape Site Analysis, and Urban Design Study, which considered the relationship of the development site to the surrounding topography, land uses, natural environment features and built form. The conclusions of these studies, including the optimal location for the EfW CHP Facility within the development site, the orientation of the building, the relationship of the site with the existing landscape, and the need for a high quality architectural design in a form that complements the dockyard industrial setting and wooded valley and residential backdrop, set the basis for the design evolution process.

10.1.3 The DAS describes (in Sections 4 and 5) the technical limitations of the EfW CHP process design, which limit the design and layout options. A summary of the EfW CHP facility components and their scale is also included in Section 4.

10.1.4 Section 6 of the DAS provides a description of the design evolution process. Early versions of the EfW CHP Facility design were based on a single curved volume design that was developed for an alternative site (the Ernesettle site allocated in the Plymouth Waste DPD, which formed part of MVV's SWDWP bid at an early stage). Once the site appraisal process described above became more advanced, the design philosophy changed significantly, leading to a series of design options that sought to de-unify the components of the EfW CHP Facility to make the process more easily visible and understandable and to minimise the mass and scale of the building and in turn minimise the impact of the building on the landscape, townscape and on views.

10.1.5 Section 6 also summarises the results of consultation with the local CABE body, which supported the de-unified design approach and provides a full justification of the proposed design, which is a striking and iconic architectural statement, intended to encourage community acceptance of the facility though its qualities as a landmark building.

10.1.6 Section 7 of the DAS describes the high quality building materials and finishes proposed for the Facility and these are also summarised at section 5.4 of this PASS.

10.1.7 Section 8 of the PASS describes in detail the landscape strategy for the site. The landscape strategy includes the following listed main components.

- The management (for biodiversity) of an extensive area of Blackie's Wood and access to this area.
- The provision of an informal recreation area, augmented by Devon banking.
- Planting to provide screening, including adjacent to Savage Road and within Blackie's Wood.
- More formal planting of strategic landmark trees, avenue trees and other formal planting and grassland areas.
- A roof terrace and art spaces.

10.1.8 Section 9 of the DAS describes the proposals for site security and lighting, including the arrangements to make the site secure and outside the secure area of the HMNB Devonport and Section 10 touches on climate change and sustainability issues, which are covered more fully in PASS Appendices 3 and 4.

10.1.9 Site access matters are addressed in Section 11 of the DAS, which describes the proposed access routing for waste vehicles, including the proposed new signalised junction from the MoD-owned access road and the replacement of the two existing bridge crossings of Weston Mill Creek with a new clear-span bridge. Pedestrian and cycle access arrangements are also described, along with on-site traffic control and circulation and the proposed access to Blackie's Wood.

10.2 Statement of Community Involvement (Appendix 2)

10.2.1 The Statement of Community Involvement (PASS Appendix 2) provides a full description of the extensive pre-application community consultation process undertaken by MVV, which included widely-advertised roadshows and exhibitions open to the public, held in venues within the local community.

10.2.2 In designing the consultation process, MVV had regard to the requirements of the Plymouth City Council Statement of Community Involvement. As well as holding roadshows, the programme of consultation included meetings and briefings, dissemination of information, reviewing feedback received and setting out how this feedback influenced MVV's proposals.

10.2.3 The feedback received from the most recent series of roadshows indicated that concerns about impacts on health, traffic impacts and emissions were foremost concerns of the most people who completed response forms. Some people also had concerns about issues such as safety in respect of HMBN Devonport and environmental impacts and others objected to EfW as a waste management option generally.

10.2.4 As part of its planning application, MVV has prepared technical assessments on a wide range of issues. The main concerns summarised above have been addressed in a Health and Wellbeing Assessment (PASS Appendix 5) and an assessment air quality impacts on human

health (ES Chapter 13). The Transport Assessment considers the impacts on the transport network. The MoD has carried out the necessary risk assessments in relation to risks to its operations, as reported at ES Appendix 6.1. The Environmental Statement is a report on a comprehensive assessment of the likely environmental effects of the proposals and Chapter 5 of the ES considers alternative methods of managing the waste generated by communities in the SWDWP area.

10.2.5 Consultees have also commented on alternative sites and visual impact at the North Yard site and MVV has responded to these comments in its selection of the North Yard site and by making changes to the design of the building, in several stages, including substantial changes since the February 2011 public exhibitions.

10.2.6 MVV plans further, on-going public involvement though a Local Liaison Committee and the establishment of a Plymouth Local Office, which will be open to visitors to view details of the proposals.

10.3 Climate Change and Sustainability Statement (incorporating BREEAM and WRATE Assessments) (Appendix 3)

10.3.1 The Climate Change and Sustainability Statement identifies the sustainability credentials of the MVV EfW CHP facility and demonstrates the compatibility of the scheme with sustainable development policy at the national, regional and local level. It reports the results of an assessment of the scheme against the BREEAM and WRATE appraisal criteria, demonstrating the high standard of sustainable design and construction that has been achieved, and the considerable contribution to offsetting carbon emissions arising from the CHP technology employed.

10.3.2 The proposed EfW facility is entirely consistent with, and represents a considerable contribution to achieving the aspirations of local, regional and national policy on sustainable development. The EfW facility qualifies as a renewable energy facility due to the highly efficient energy recovery process employed. As such, the facility reduces reliance on natural energy resources by replacing use of natural gas/oil in the Dockyard steam system to generate energy and heat. Waste is treated as a resource, avoiding disposal to landfill consistent with sustainable waste management principles and movement of waste up the waste hierarchy.

10.3.3 The diversion of waste from landfill will minimise harmful greenhouse gas emissions which contribute to climate change, by reducing emissions associated with landfill and the burning of fossil fuels. Savings of emissions will be made by recycling by-products such as bottom ash associated with the energy recovery process. WRATE modelling has established that the proposed MVV facility results in an offsetting of -34,625 tonnes CO_2 equivalent (tCO_2eq) emissions (compared to a net burden of +38,879 tCO_2eq which would be generated by a landfill only solution). This delivers a reduction of 73,504 tCO_2eq per year, equating to 1.84$MtCO_2eq$ emissions over the course of a 25-year contract.

10.3.4 The development represents a sustainable use of land, as it is located primarily on previously developed land which benefits from a unique complementary position adjacent to a major CHP customer. This complementary CHP arrangement will improve the economic viability of the Dockyard and make an important contribution to sustaining the local and sub-regional economy.

10.3.5 The MVV facility achieves a BREEAM Excellent rating, demonstrating its sustainable design and construction credentials. The facility will contribute to the sustainability of the local community by providing employment, education and business opportunities, enhanced community facilities, and improved open space and local habitats.

10.3.6 The substantial carbon off-set and climate change benefits of a high efficiency, CHP energy recovery facility, alongside its substantial contribution to sustainable waste management targets for the South West Devon sub-region and the significant social, economic and environmental benefits for the immediate local community (which currently experiences significant deprivation) - demonstrate the exemplary sustainability credentials of the proposed MVV EfW CHP facility. The Climate Change and Sustainability Statement demonstrates the excellent fit between the development proposals and the relevant sustainable development and climate change planning policy and objectives at the national level, including PPS1 and the PPS1 Climate Change Supplement.

10.3.7 At the regional level, the MVV EfW CHP facility makes a substantial contribution to regional targets for reducing carbon emissions, increasing renewable energy production and ensuring local self-sufficiency and offers a sustainable waste management solution to the residual municipal waste management requirements of Plymouth, Teignbridge, South Hams and Torbay - consistent with the jointly preferred option identified by these authorities for an EfW facility of sub regional capacity, located in Plymouth.

10.3.8 At the local level, the proposals are consistent with the sustainable policy direction for the city of Plymouth as set out in the Core Strategy and Design SPD. The Climate Change and Sustainability Statement considers the proposals in the context of Chapter 3 of the Plymouth Design SPD and concludes that the EfW CHP facility will make a major contribution to meeting the objective of delivering a sustainable community, including contributions to local neighbourhood sustainability targets in relation to greenspace, biodiversity, employment, community infrastructure and education.

10.4 Energy, Economy, Employment and Education Benefits Statement (Appendix 4)

10.4.1 The Energy, Economy, Employment and Education Benefits Statement sets out in detail the rationale for and benefits of the CHP facility and its location in relation to energy provision and the local economy. The statement identifies the achieved efficiencies in carbon dioxide savings for each partner local authority as a result of diversion of waste from landfill, and the savings associated with supply of steam to the HMNB heating system. The rationale behind the site selection process is described, including the influence of site selection on CHP efficiency, both

in terms of current and future CHP opportunities. Future opportunities including possible extensions to the HMNB steam system and the potential to supply District Heating (DH) schemes are identified. In particular the potential for connections to a DH system in Barne Barton, Keyham, St Budeaux and Weston Mill are explored. The employment benefits of the facility are examined, both in terms of meeting the CHP needs of existing Dockland activity and future, planned development.

10.4.2 The EfW CHP Facility has been designed to deliver steam to the Naval Base North Yard steam system and the Fleet Accommodation Centre (FAC); displacing steam currently generated by boilers fired by natural gas/oil. Once in operation, benefits include savings of 82,200,000 kWh per annum of natural gas and 15,194.6713 tonnes of carbon dioxide, a 20% reduction in the annual energy bill and commercial savings estimated at £1,900,000 per annum.

10.4.3 The EfW CHP Facility is designed to be its most efficient under the expected operating conditions of the North Yard steam system and can deliver varying amounts of steam/electricity to cater for the expected variations. Although not currently designed to deliver pressurised hot water, such modifications could be made relatively easily in the future.

10.4.4 With a net overall efficiency of 39% on average, rising to 49% when steam demand is highest, the EfW CHP facility achieves an R1 Coefficient rating of between 0.95 and 1.01, enabling it to be classified as "recovery of waste" under the European Waste Framework Directive[14] and entitling the award of Renewable Obligation Certificates (ROCs). The revenue derived from ROCs allows the EfW CHP facility to offer reduced waste disposal and energy costs. The facility also achieves a Quality Index (QI) rating of 102, qualifying as a Good Quality CHP Scheme[15]. When compared to other energy from waste schemes recently built or planned in the UK the CHP potential of the proposed scheme is almost unique.

10.4.5 In addition to the carbon dioxide and energy savings experienced by the local authorities, Dockyard and Naval Base, the scheme will benefit both national and local government, from derived rent, rates and taxes; and Plymouth, Torbay, West Devon, Teignbridge and South Hams taxpayers, who will benefit from the reduced cost of waste disposal through the avoidance of landfill and associated tax. The SWDWP, MoD, Babcock Marine and Falcon[16] will benefit from waste disposal cost savings, including from a reduction in waste transport costs, and these reduced costs and carbon dioxide savings will also lead to savings for the taxpayer. Finally, the MoD, City of Plymouth, south-west region and UK will all benefit from the contribution towards local, regional and national targets for renewable/low carbon energy.

10.4.6 In the event that the level of demand for steam from the Naval Base is reduced, demand could be replaced by extensions to the Naval Base South Yard (not economically viable currently) or new pressurised hot water circuits. There are a number of shorter term additional developments planned for the Naval Base that could be added to the planned heat demand.

[13] The conversion factor required to convert natural gas in kWh to CO_2 (kg CO_2 per unit) was sourced from the 2010 Guidelines to Defra/DECC's GHG Conversion Factors for Company Reporting (Defra 2010). The conversion factor required is shown in Table 1c as 0.18485. The result was converted from kg CO_2 per unit to tonnes CO_2 per unit by dividing by 1000.
[14] A minimum rating of 0.65 must be achieved to obtain this classification.
[15] To qualify at the design stage the QI must be between 100 and 105.
[16] Under a Private Finance Initiative (PFI), Falcon Special Purpose Vehicle has built or upgraded the Single Living Accommodation and support services associated with the FAC. Falcon now provides a total facilities management service and the PFI contract has 20 years of service delivery remaining.

Although there are no existing DH systems in Plymouth, commercial feasibility and appetite is being explored. There are a number of barriers to overcome and the Statement examines the range of economic enabling mechanisms. Along with the formation of an appropriate Energy Service Company (ESCo) these measures may serve to overcome the high capital plant and infrastructure costs and operational risks to developers from DH schemes.

10.4.7 At present, the Dockyard and Naval Base together generate 13% of Plymouth's Gross Value Added income. Long term plans for the Naval Base include selective redevelopment to improve operations and centralise core business activities in the North Yard, releasing surplus land to the private sector for redevelopment. In the drive to reduce operating costs, carbon emissions and sustain employment, the proposed MVV EfW CHP facility is vital to the Dockyard regeneration, both through employment generation and financial savings to ensure the long term sustainability of the Dockyard and Naval Base.

10.4.8 The proposed EfW CHP facility has the potential to generate significant employment benefits, both during the construction of the facility and during its operation, directly and indirectly. A socio-economic impact assessment (presented at Chapter 17 of the Environmental Statement) has calculated job creation during construction and operation. It is estimated that there will be an average of 159 persons employed on the construction site every day. The peak will be reached during October 2013 with about 309 persons employed on site. During operation, it is estimated that there will be 43 jobs created, 18 of which are likely to be local, and 25 within the region. The upgrading work of the steam pipe network within the dockyard will create additional job opportunities for the local mechanical engineering resource base, in addition to those created by the EfW CHP facility itself.

10.4.9 The civil works element of the construction will be delivered by Kier Construction Ltd, who are committed to employing approximately 70% of their labour from Plymouth, Devon and the wider South West area. Kier have a strong track record of investment in local community projects, STEM and college/university liaison. Operation of the plant will be carried out by the operations and maintenance teams of MVV. To support its aim of recruiting staff locally, MVV will utilise local recruitment routes such as the Plymouth job centre, local employment agencies, the University of Plymouth, Plymouth City College and the Regular Forces Employment Association. MVV will also seek to source commercial and administrative functions locally.

10.4.10 Since being appointed as preferred bidder for the SWDWP project, MVV has met with different stakeholders to explore opportunities for cooperation and to promote local employment, training and educational opportunities. These conversations have included City College Plymouth and the University of Plymouth.

10.5 Health and Wellbeing (Appendix 5)

10.5.1 Chapter 18 of the Environmental Statement reports on an assessment of the potential impacts directly associated with air quality, acoustics (noise and vibration) or with road vehicle movements arising from the construction and operation of the proposed EfW CHP facility, on the health and well-being of local communities. The significance of the effect on human health

and the social determinants of well-being of these impacts is assessed. The social determinants which are considered include control, resilience and community assets, participation and inclusion.

10.5.2 Appendix 5 to this PASS is a short summary of main points from ES Chapter 18. The summary identifies an authoritative body of evidence on the health impacts of EfW, including publications by Defra and the Health Protection Agency and concludes that this body of evidence demonstrates very clearly that the operation of a modern, well managed EfW facility within any urban centre in the UK is likely to cause a very small, if detectable, effect on the health of those living in the surrounding area.

10.5.3 The assessment of effects on health and wellbeing as part of the EIA resulted in the main conclusions listed below.

- The predicted pollutant concentrations associated with the operation of the EfW CHP facility would not result in a significant effect at any air quality sensitive receptors.
- The assessment of the effect of predicted change in the ambient concentrations of sulphur dioxide (SO_2), nitrogen dioxide and respirable particulate matter (PM_{10} and $PM_{2.5}$) on human health has demonstrated that the predicted impacts do not represent a significant effect to the health of the local population as a whole.
- The carcinogenic and non-carcinogenic risk to human health from exposure to emissions of metals and organic substances these emissions, resulting from the operation of the ERF CHP facility, have been demonstrated to be so small that they would not represent a significant effect.
- The effects on human health predicted for the proposed EfW facility, as a result of emissions of pollutants to air, are in keeping with the low level of risk to health that Defra and the Health Protection Agency have identified as being achievable by modern well managed EfW facilities in the UK.

10.5.4 The summary notes that the construction and operation of the proposed EfW CHP facility has the potential to impact on the on the social determinants of mental well-being, but that proposed mitigation measures, including those to reduce the impact of emissions to air, noise and vibration, road traffic and the perceived impact of the facility, seek to have a positive impact on well-being.

10.5.5 The summary concludes 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. Overall the proposed scheme is highly unlikely to interfere with the successful implementation of any of the measures in Plymouth's Health, Social Care & Well-being Strategy that are intended to address priority health and well-being inequalities within Plymouth and therefore the effect of the scheme (with incorporated mitigation) on health and well-being is considered to be negligible. Therefore the effect of the scheme (with incorporated mitigation) on health and well-being is considered to be negligible and any fears of potential health and well-being effects are unlikely to be objectively justified.

10.6 Habitats Regulations Assessment (Appendix 6)

10.6.1 The objective of the Habitats Regulations Assessment is to identify any aspects of the project that are likely to have a significant [adverse] effect on the integrity of Natura 2000 sites[17], either in isolation or in combination with other plans and projects. A 10km radius was used to screen sites in and out of the assessment, based on Environment Agency guidance on screening point-source pollution emitters[18].

10.6.2 Two European designated sites lie within 10km of the MVV EfW CHP facility boundary, Plymouth Sound and Estuaries SAC, approximately 500m to the west; and Tamar Estuaries Complex SPA, approximately 2km to the north-west. South Dartmoor Woods SAC is also included in the assessment, as it lies just 400m outside the 10km zone.

10.6.3 Following consideration of the sensitivities of the surrounding European sites and the details of the project, a number of pathways were identified for assessment: including disturbance from noise and vibration or the visual presence of construction workers; air quality impacts from deposition of pollutants; and water quality impacts via Weston Mill Stream (both in terms of direct discharge/runoff of water into the Stream and sediment impacts from the bridge installation).

10.6.4 With respect to noise and vibration, Allis shad (Alosa alosa) is the only interest feature of the Plymouth Sound and Estuaries SAC that is sensitive to noise and vibration. As land based bored piling will be utilised, it is very unlikely that construction piling would have a significant effect. The separation distances between the Tamar Estuaries Complex SPA and the South Dartmoor Woods SAC, and the large area of urban development between, result in significant effects on these sites being unlikely.

10.6.5 With respect to air quality impacts from deposition of pollutants; Municipal Solid Waste and Commercial and Industrial waste is already being collected and transported throughout the South West Devon Waste Partnership area to a network of disposal sites. The proposed EfW CHP facility will not therefore significantly alter the overall quantum of waste movements in the area, and although it will relocate the geographical focus of those movements it will not increase traffic movements within 200m of any European sites. The assessment reports that deposition at European sites considered would be below the threshold set by the Environment Agency below which impacts are inconsequential and can be dismissed.

10.6.6 With respect to water quality impacts via Weston Mill Stream, Plymouth Sound and Estuaries and its qualifying habitats and species are all sensitive to deterioration in water quality and (to a lesser extent) changes in flow patterns and rates. The Weston Mill Stream (a tributary of the SAC) lies immediately adjacent to the development site. However there are a number of pollution prevention and drainage management features inherent within the design of the proposed MVV EfW CHP facility which will provide protection to surrounding water features. It

[17] Otherwise known as European sites (Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)) or, as a matter of Government policy, Ramsar sites
[18] Environment Agency. 2003. Integrated Pollution Prevention and Control - Environmental Assessment and Appraisal of BAT. Horizontal Guidance Note IPPC H1

is therefore considered unlikely that a significant water quality effect will occur. For similar reasons, there is unlikely to be a significant effect on the interest features of the Tamar Estuaries Complex SPA; and there is no hydrological connection between South Dartmoor Woods SAC and the development site.

10.6.7 In summary, the proposed EfW CHP facility would be unlikely to lead to significant effects on any internationally designated wildlife sites either alone or in combination with other projects and plans and no Appropriate Assessment is therefore necessary.

10.7 Compatibility with the Development Plan (Appendix 7)

10.7.1 Appendix 7 to this Planning Application Supporting Statement provides an analysis of the compatibility of the proposed development of the MVV EfW CHP facility at North Yard, Devonport with the policies of the existing and emerging development plan and with national planning policy. This analysis confirms the compatibility and consistency of the development proposals with the national, regional and local policy framework.

10.7.2 The proposals are in accordance with the government's national objectives for sustainable development: i.e. development which is sensitive to the implications of climate change; which contributes to national targets for sustainable waste management, renewable energy generation and reduction in carbon emissions; and those national policy considerations which apply at the local level, i.e. meeting the waste management needs of local communities, sustaining the local economy and mitigating any adverse impacts on the environment and communities arising from development.

10.7.3 The development plan for Plymouth comprises of Regional Planning Guidance for the South West (RPG10), the Adopted Plymouth Core Strategy and the Adopted Plymouth Waste Development Plan. The Draft Regional Spatial Strategy for the South West currently forms part of the emerging development plan.

10.7.4 The MVV EfW CHP is consistent with the relevant policies in RPG10, namely policies Policy VIS 1: Expressing the Vision, Policy VIS 2: Principles for Future Development, Policy RE5: Management and Transportation of Waste and Policy RE 6: Energy Generation and Use. The EfW CHP facility will be located primarily on previously developed land; within Plymouth (a Primary Urban Area), where the largest amount of waste arises - minimising the distance that waste is required to travel and reducing the need to develop on greenfield land (consistent with VIS1). The proposed development will not compromise efforts to achieve or surpass recycling and composting targets and will also make a substantial contribution to the targets for diverting waste from landfill and recovering value from waste within the PUAs at the regional level (VIS2). The proposed development will help to reduce greenhouse gas emissions by diverting waste from landfill and displacing high carbon sources of electricity (RE5 and RE6).

10.7.5 With respect to the Adopted Plymouth Core Strategy, the proposed development is in accordance with the high level sustainability policies and objectives, as it will improve the sustainability of Devonport Dockyard, not only through the provision of low carbon electricity

and heat, but also by providing a catalyst for further development. The proposed development will also make a contribution to addressing the needs and aspirations of neighbouring Barne Barton (in accordance with Policy CS01 Sustainable Linked Communities). The development proposals have gone through an extensive and considered design evolution process in order to achieve a high quality building that is responsive to its setting and environment and which attempts to mitigate, as far as possible, impacts on local and longer-distance views arising from a building of this scale, thus addressing the concerns of Policy CS02 Design.

10.7.6 Although adverse effects have been recorded with respect to a number of built heritage and historic landscape features (Chapter 9 of the Environmental Statement), location and landscaping will help to offset these impacts and thus address the requirements of Policy CS03 Historic Considerations. Compliance with policies on Future Employment Provision (Policy CS04), Green Space (CS18), Wildlife (CS19) and Sustainable Resource Use (CS20) is achieved as a result of the expected employment and training opportunities, improvements to informal open space, green space and local habitats included as part of the proposals and the high standard of sustainable resource use, demonstrated by its 'excellent' BREEAM pre-assessment rating. Flood risk has been mitigated to a low or very low risk, in accordance with Policy CS21 Flood Risk, through adoption of a surface water drainage strategy, including SuDs, and the raising of site levels. The Environmental Statement concludes that, provided appropriate mitigation measures are employed, the proposed EfW CHP facility will not pose an increased risk to human health or the environment and thus accords with Policy CS22 Pollution.

10.7.7 The proposed development is a direct response to the need for a strategic facility for the treatment of Plymouth's residual municipal waste that moves management responses up the waste hierarchy, and as such is in accordance with Policy CS25 Provision for Waste Management and CS26 Sustainable Waste Management. As an employment generating development, the site offers realistic choice of access by public transport, walking and cycling, consistent with Policy CS28 Local Transport Considerations and has been designed in accordance with 'secured by design' principles (consistent with Policy CS29 Designing out Crime). Finally, the design proposals are sensitive to, and have considered and provided for, all of the criteria identified in Policy CS34 Planning Application Considerations.

10.7.8 The proposed EfW CHP development is also consistent with the criteria in Policies W7 'Unallocated Sites' and Policy W8 'Considerations for Waste Development Proposals', of the Adopted Plymouth Waste Development Plan Document. These policies relate to: consistency with relevant waste policy, previously developed land, impacts on environmental setting, amenity, health, economic, social or environmental assets, capacity and access to the principal road network, vehicle movements on-site, pest/vermin mitigation, spatial planning objectives and standard of design. A full consideration of the compatibility of the proposals with policies W7 and W8 is provided in Appendix 7 and this is duplicated in Section 11 of this PASS.

11 Compatibility with the Development Plan

11.1 Introduction

11.1.1 Plymouth City Council Waste Development Plan Document includes Policies W7 and W8, against which applications for waste management development in Plymouth will be assessed. These are the main relevant development plan policies, but a full assessment of the compatibility of the proposed EfW CHP Facility with development plan policy and national planning policy is provided in PASS Appendix 7.

11.2 Policy W7 - Unallocated Sites

11.2.1 Policy W7 of the Plymouth Waste Development Plan Document (PWDPD) provides for planning permission to be granted for the development of waste management facilities on sites not allocated in the PWDPD, subject to the proposed development satisfying certain criteria. Policy W7 is reproduced below and this section (11) of the Planning Application Supporting Statement demonstrates that the proposed EfW CHP development is consistent with the criteria of Policy W7.

PWDPD 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.*

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, and that the impacts of the development can be adequately mitigated and the development proposal otherwise performs well in relation to the other criteria of this policy.*

3. *They are compatible with their environmental setting and will not result in unacceptable impacts on important environmental, historic or cultural assets.*

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 users that would be sensitive to waste management development.*

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.*

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."*

W7 Criterion 1: Consistency with Relevant Waste Policy

Introduction

11.2.2 Criterion 1 of Policy W7 sets out three requirements for proposed waste management development on unallocated sites. These requirements state that the proposed development should:

- be compatible with the objective of moving the management of waste up the waste hierarchy;
- not compromise the achievement of recovery targets; and
- be consistent with relevant waste planning policies and objectives.

Waste Hierarchy

11.2.3 The proposed development will recover energy and heat from residual municipal waste that is currently disposed of by landfill. The proposed development therefore provides a residual waste solution which accords with the objective of moving waste management up the waste hierarchy.

11.2.4 The EfW CHP Facility would sit within the "other recovery" level of the waste hierarchy, which is a lower level in the hierarchy than "recycling". However, the capacity of the EfW CHP facility has been carefully designed to manage residual waste that has not been recycled as part of the recycling strategy of the SWDWP authorities. These recycling strategies aim to meet or exceed government recycling targets. ES Chapter 3 provides a more detailed assessment of the need for residual waste recovery capacity.

11.2.5 In addition, because the proposals include the delivery of combined heat and power to the Devonport Dockyard, they will make an additional contribution to tackling climate change, over and above the carbon emissions benefits of a traditional EfW scheme that would only provide power to the national grid by allowing existing fossil fuel plants in the Dockyard to be placed on "stand-by" and only used when the EfW plant is not operating. Whilst the waste hierarchy, as defined in Waste Strategy 2007, does not distinguish between CHP and none-CHP EfW

schemes, the provision of CHP in this scheme, in accordance with government sustainable energy policy in PPS1, the PPS1 Climate Change Supplement and PPS22, is a clear indication that the proposals are very firmly in accordance with the waste hierarchy. PASS Appendix 4 (Energy, Economy, Employment and Education Benefits Statement) provides a full description of the CHP benefits of the scheme.

Recovery Targets

11.2.6 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.

11.2.7 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.

11.2.8 As described in Environmental Statement Chapter 3, the amount of capacity required by the SWDWP area to manage residual municipal solid waste has been carefully assessed and reviewed between the submission of the Outline Business Case and the Final Business Case by the Partnership, taking into account a range of factors, including best available forecasts of population and waste growth and assumptions that ambitious recycling targets will be met, through a number of initiatives by the Partnership authorities.

Relevant Waste Planning Policy

11.2.9 Relevant waste planning policy is set out primarily in PPS10 and in the development plan.

11.2.10 The development plan comprises RPG10, the Plymouth Core Strategy (PCS) and the Plymouth Waste DPD (PWDPD). RPG10 pre-dates PPS10, the PCS and the PWDPD and consequently the weight to be attached to RPG10 policies must be considered in this context, but the proposals are fully compatible with the waste management policies of RPG10 (as summarised in Appendix 7), particularly in meeting the targets set out in Policy RE5 and the greenhouse gas reduction and renewable energy generation targets in Policy RE6.

11.2.11 The supporting text to Policies W7, W8 and W9 of the PWDPD states that these policies have been prepared to provide the positive planning framework required by Core Strategy Strategic Objective 13, point 5, which states that sustainable waste management will be achieved through the provision of a positive planning framework to enable sustainable waste management development, where environmental impacts are acceptable. The PCS includes two policies on waste management, CS25 and CS26. In this context, the proposals are in accordance with the final sentence of PCS Policy CS25, in that they are located on previously developed land and (as demonstrated in Appendix 7). The proposals are also firmly

compatible with Policy CS26 on sustainable waste management, as far as it is relevant to this planning application, in that the proposals are part of an integrated waste management solution, are consistent with development control objectives to minimise potential adverse effects of waste development and are part of a partnership waste management solution with neighbouring authorities.

11.2.12 The PWDPD contains two main policies (W7, W8) that are relevant to the determination of this planning application and the compatibility of the planning application with Policy W7 is the subject of this section. 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. However, potential alternative sites and the site allocations in policies (W1 and W2) are addressed in Chapter 5 of the Environmental Statement and they do not have the same capacity to provide a CHP solution with the associated carbon savings.

11.2.13 Relevant national waste planning policy is set out by PPS10 and a consideration of the compatibility of this planning application with the relevant policies of PPS10 is provided in Appendix 7 to this document. In summary, it can be concluded that the application is in accordance with the Key Planning Objectives of PPS10.

11.2.14 In relation to the consideration of planning applications for waste management development on sites not allocated in a development plan, paragraph 24 of PPS10 states:

> *"Planning applications for sites that have not been identified, or are not located in an area identified, in a development plan document as suitable for new or enhanced waste management facilities should be considered favourably when consistent with:*
>
> *(i) the policies of this PPS, including the criteria set out in paragraph 21;*
>
> *(ii) the waste planning authority's core strategy"*

11.2.15 The criteria set out in paragraph 21 of PPS10 relate to the physical and environmental constraints on development, potential impacts on the well being of the community, the capacity of transport infrastructure and priority being given to previously developed land. These criteria are broadly covered by Waste DPD Policy W7.

11.2.16 The Environmental Statement submitted in support of this planning application demonstrates that the development is compatible with the physical and environmental constraints on development and it also concludes that there would be no unacceptable potential cumulative effects. The Transport Assessment demonstrates that the existing transport infrastructure has sufficient capacity to support the sustainable movement of waste and Chapter 5 of the Environmental Statement includes a consideration of alternative sites and the potential for transportation of waste and products of the EfW process by other transport modes, concluding that North Yard offers the most deliverable CHP opportunity and that alternative transport modes are not practicable in this case. The proposed development is on previously developed, former industrial land.

Criterion 1 Conclusion

11.2.17 The above analysis and supporting evidence demonstrates that the proposals conform with the requirements of criterion 1 of Policy W7.

Criterion 2: Previously Developed Land

Introduction

11.2.18 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 and 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. Most recently the Site was used for the processing of demolition rubble, under planning permission 04/01974 dated 30/12/2004. Previous planning permissions for the Site are summarised in section 3.2 of this PASS.

11.2.19 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'. Compatibility with CS policies 18 and 19 relevant to Greenscape and biodiversity network is established in Appendix 7. This area of woodland is included in the planning application boundary because MVV has leased this land from the MoD and intends to undertake biodiversity improvements the woodland habitat and to provide access to the area including for use as an educational resource to groups visiting the facility.

11.2.20 Also included within the red-line planning application boundary is an area to the south of the proposed main EfW CHP facility, known as Table Top Mountain, which will be used temporarily as a construction compound and will be handed back to the MoD on completion of construction. This area is also previously developed land and the planning history of this area is summarised in Section 4.2.

11.2.21 The site access route from the site to the adopted public highway, and the network of proposed CHP infrastructure improvements, which are routed from the main EfW CHP site into the MoD Dockyard, are also included in the planning application boundary, and all lie mainly on previously developed or developed land.

11.2.22 The existing steam / hot water system which serves the Dockyard will also be refurbished and upgraded and included in the planning application boundary as will the electricity connections to the existing sub-station.

Criterion 2 Conclusion

11.2.23 The proposed EfW CHP facility and associated access road and electricity and steam network infrastructure is situated mainly on previously developed land and is therefore considered to be in accordance with criterion 2 of Policy W7.

Criterion 3: Environmental Setting

Introduction

11.2.24 Criterion 3 of Policy W7 states that proposals for waste management development on unallocated sites should be compatible with their environmental setting and should not result in unacceptable impacts on important environmental, historic or cultural assets.

Environmental Setting

11.2.25 The environmental setting of the site is described in Chapter 4 of the Environmental Statement. The EIA has taken account of the environmental setting of the site and has considered the likely effects of the proposed development on the application site and the environmental setting of the site.

11.2.26 The Site is located at present within the secure boundary of HMNB Devonport Dockyard, and as such its environmental setting is heavily influenced by the adjacent and nearby dockyard uses. As part of the development a new secure fence will be constructed to separate the development from the Dockyard. The site is situated in the 'North Yard' area of the Dockyard, which will continue to act as an operational naval base while it is anticipated that areas of the South Yard are likely to be released for non-military uses by the MoD. Likely future developments in the North Yard area include the development of a Royal Marine landing craft depot, a rehabilitation facility for injured military personnel and the possibility of a submarine dismantling project being undertaken at the Dockyard.

11.2.27 Although the site is situated within the Dockyard, it is also located within relatively close proximity to residential properties to the west / north west of the site in Barne Barton, particularly those on Savage Road and Talbot Gardens, beyond Blackies Wood biodiversity network feature and local Greenscape area. Other residential areas lie to the east of the site, but are separated from the site by a Greenscape area and railway line, which is routed on a viaduct as it passes the Site. As such, both the residential areas and Blackies Wood contribute to the environmental setting of the site.

11.2.28 The impact of the development on its environmental setting is considered particularly in the ES Chapters on Ecology (ES Chapter 7) and Landscape (ES Chapter 8).

11.2.29 Chapter 7 of the ES concludes that, subject to the implementation of mitigation measures that form part of the proposed development, there are expected to be beneficial effects on

biodiversity in respect of the enhancements proposed to Blackies Wood and the replacement of a culverted watercourse crossing with a new clear span bridge.

11.2.30 Chapter 8 of the ES describes the likely effects on landscape character and visual amenity of the proposed development. The ES Chapter's conclusions in respect of visual amenity are addressed below, under criterion 4. In terms of landscape character, ES Chapter 8 concludes that the combination of built form, new landscape and management of existing landscape features will ensure that the scheme positively contributes to the townscape and landscape of the local environment.

11.2.31 Based on the findings of the ES, it is considered that the proposed development is not unacceptable in its environmental setting.

Important Historic and Cultural Assets

11.2.32 ES Chapter 9 presents an assessment of the potential effects of the proposed development on heritage assets. The ES Chapter concludes that (with appropriate mitigation) the proposed development would only have a number of effects of minor and moderate adverse significance on a limited number of historic features. Given the benefits of the proposed development, it is considered that these adverse effects would not be unacceptable.

Important Environmental Assets

11.2.33 The ES includes an assessment of the environmental effects on a range of environmental assets, including national planning policy designations. The necessary topic-coverage of the ES has been agreed with the waste planning authority through an EIA scoping process, culminating in a formal 'scoping opinion' issued by the authority, which is reproduced at Appendix 2.3 to the ES. The ES includes assessments of the effects of the proposed development on the environmental asset topics listed below.

- Ecology
- Landscape
- Cultural Heritage
- Land and Water Quality
- Hydrology, Hydrogeology and Flood Risk

11.2.34 The conclusions of the ES are summarised in Section 8 of the PASS and the ES itself is accompanied by a Non-Technical Summary and Chapter 20 of the ES is a summary of the EIA findings. None of the assessments of environmental effects in the above topic areas conclude that the development would give rise to any permanent significant adverse effects,

consequently the proposals accord with the Criterion 3 requirement that there should be no unacceptable impacts on important environmental assets.

Criterion 3 Conclusion

11.2.35 The likely effects of the proposed EfW CHP facility on its environmental setting and on important historic, cultural and environmental assets have been comprehensively assessed as part of the EIA process and reported in the ES. The ES concludes that there would be no unacceptable impacts on these assets. The proposed development is therefore in accordance with criterion 3 of Policy W7.

Criterion 4: Amenity

Introduction

11.2.36 Criterion 4 of Policy W7 states that proposals for waste management development on unallocated sites should:

> *"…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 users that would be sensitive to waste management development."*

11.2.37 The Environmental Statement includes the findings of an assessment of the impact of the proposed development on residential amenity and the amenity of other neighbouring users that are potentially sensitive to waste management development. The scope of the assessment of effects on amenity was informed by a formal EIA scoping process and by a scoping opinion issued by Plymouth City Council, which can be found at Appendix 2.3 to the ES. The ES includes assessments of the effects of the proposed development on the amenity topics listed below.

- Views (Visual Impact)
- Air Quality
- Noise and Vibration
- Daylight, Sunlight and Overshadowing
- Inter-relationship and Cumulative Effects
- Summary of Environmental Effects, Mitigation and Monitoring

Receptors

11.2.38 The ES identifies the principal receptors of the scheme and these vary for different types of potential effects and are identified in individual ES chapters, but broadly speaking, these are human beings the areas they occupy, such as residential and workplace buildings close to the proposed facility.

Potential Impacts

11.2.39 The conclusions of the ES are summarised in Section 9 of the PASS and the ES itself is accompanied by a Non-Technical Summary.

11.2.40 The EfW CHP facility includes a number of measures designed to minimise emissions of dust and odour to air, including the tipping and handling of waste and loading of process residues taking place entirely within the building, the maintenance of negative air pressure within the building to avoid release of odour and an exhaust gas cleaning system designed to meet modern standards and avoid the release of dust. The assessment of amenity effects relating to dust and odour demonstrate that there would be no significant adverse effects. The Environmental Permitting regime provides the mechanism by which the controls will be put in place and enforced, to ensure that the proposed EfW CHP facility is operated in a manner that would not result in significant effects on local air quality.

11.2.41 The siting and design of the facility was carefully considered to ensure that potential effects relating to the reduction of daylight and sunlight and overshadowing, were minimised. The assessment of these potential effects in the ES demonstrates that this process was successful and that there are unlikely to be any significant adverse effects.

11.2.42 The facility has been carefully designed to avoid adverse impacts from noise generated by the process. The route taken by HGVs delivering and exporting materials to and from the building has been located on the side of the building furthest away from the closest residential area and all waste and materials handling processes will take place within the building. The noisiest components of the facility are enclosed in double-skinned cladding and in places by concrete walls. Generally, the noisier peripheral plant items have been located on the east side of the building, away from the closest residential area. The assessment of adverse impacts from noise demonstrates that, for short durations, when construction activity is closest to nearby properties, it is possible that noise limit values will be exceeded leading to some significant adverse effects. However, these adverse effects can be minimised by the application of noise barriers and where this is practical, these effects will be reduced to low or negligible significance. Therefore, the overall significance of construction noise effects is assessed as being very low.

11.2.43 At an early stage in the EfW CHP facility design evolution process, it was established, in consultation with the South West Regional Design Panel and with Plymouth City Council, that an EfW CHP building of the scale proposed could not be hidden in the location proposed and that an appropriate design response was required, to address the scale and particular location of the proposed building.

11.2.44 MVV, advised by its architect and landscape architect, embarked on a design evolution process, with the objective of delivering a design that responded to its surroundings and that was of a quality and elegance which would encourage public acceptance and pride in a building that embodies a sustainable future for the local community, Devonport Dockyard and the thousands of local jobs that the Dockyard supports. The proposed design solution includes an acknowledgement of the impact of a building of this scale on certain local view points, through a high quality, distinctive and elegant design, which connects the neighbourhood to the history of the Dockyard. A full description of the design evolution process is provided in the DAS, submitted in support of this planning application.

11.2.45 The assessment of adverse impacts on views from a range of locations, including residential properties, public areas and businesses, demonstrates that there are likely to be a small number of major adverse impacts on views from certain residential properties in the Barne Barton and Weston Mill Area. Chapter 8 of the ES quantifies these impacts, noting that major significant adverse effects are limited to one receptor during construction (Talbot Gardens), two receptors at year one of operation (Savage Road and Cardinal Avenue) and one receptor at year 15 of operation (Cardinal Avenue).

11.2.46 The quality of views that are adversely affected, which are currently dominated by a disused and mixed-character industrial foreground and a monochromatic industrial backdrop of large scale buildings, has been taken into account in the EIA methodology.

11.2.47 Chapter 8 of the ES concludes that, the soft landscaping and Greenspace enhancement proposals, together with the elegant and distinctive design of the building, ensure that the scheme makes a positive contribution to local townscape, landscape and biodiversity, sufficient to mitigate the adverse visual impacts classified by the EIA methodology as significant. Overall, despite its visual prominence from some locations, the ES concludes that the proposed scheme is in line with Core Strategy Policy CS34, in that it 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.

National Planning Policy

11.2.48 Planning decisions where a balancing judgement between the wider benefits of a development proposal against potential adverse local impacts must take account of national planning policy, as summarise in Chapter 5 of this Planning Application Supporting Statement. In particular:

- PPS1 – wider sub-regional, regional or national benefits should be considered alongside adverse local impacts.
- PPS1 – different weigh can be given to social, environmental, resource or economic considerations.
- PPS1 Climate Change Supplement – new development should be planned to make good use of opportunities for decentralised and renewable or low carbon energy.

- PPS1 Climate Change Supplement – other than in the most exceptional circumstances, any local approach to protecting landscape or townscape does not preclude the supply of renewable energy.

- PPS4 - Planning applications that secure sustainable economic growth should be treated favourably.

- PPS10 - Recognition of the wider sustainable development benefits of waste management development should be given great weight in planning decisions

- PPS22 - The wider environmental and economic benefits of all proposals for renewable energy projects, are material considerations that should be given significant weight in determining planning applications

- The Localism Bill and the 23/03/11 Ministerial Statement – "the answer to development and growth should wherever possible by 'yes', except where this would compromise the key sustainable development principles set out in national planning policy."

- The Localism Bill and the 23/03/11 Ministerial Statement – planning decisions should give appropriate weight to the need to support economic recovery, that applications that secure sustainable growth are treated favourably

- The Localism Bill and the 23/03/11 Ministerial Statement – Economic benefits should be an important consideration. Decisions should place particular weight on the potential economic benefits offered by an application.

Criterion 4 Conclusion

11.2.49 The ES has assessed the proposed development to determine its potential impact on residential amenity on all relevant sensitive receptors.

11.2.50 The ES concludes that the proposed development would have no significant adverse effects on residential amenity in terms of air quality or daylight, sunlight or overshadowing. It is therefore concluded that the proposed development would have no unacceptable amenity impact in regard to these factors.

11.2.51 Chapter 14 of the ES considers noise and vibration effects. The assessment finds that, whilst construction noise could cause some short-term significant adverse effects, where it is practical to implement, mitigation in the form of noise barriers close to the construction activity will reduce noise effects to low or negligible significance.

11.2.52 Chapter 8 of the proposed development, covering landscape and visual impact, concludes that the proposed development would have some long term beneficial effects on local landscape character and some major significant adverse effects on visual amenity for up to three residential visual receptors at Talbot Gardens, Savage Road and Cardinal Avenue. The landscape and visual impact assessment concludes that the combination of built form, new landscape strategy and management of existing landscape features are appropriate and

sufficient to overcome the adverse visual effects classified by the EIA methodology as significant. The perception of significance of these adverse effects on views are also likely to be softened by a general public appreciation of the quality of the landmark building design and the important role played by the building in securing a sustainable future for the community.

11.2.53 The determination of whether these limited and quantified adverse affects on amenity are acceptable or not, must, in accordance with national planning policy, (see paragraph 11.6.13) be part of a balanced judgement, taking account of the need for residual waste management capacity and the wider sustainable development and other benefits of the scheme and the potential adverse effects.

11.2.54 In the case of this development proposal, its has been demonstrated through a comprehensive EIA process, that the likely significant adverse impacts on the amenity of residents and other neighbouring users is limited to effects on views from up to three residential visual receptors and possible short term construction noise. The ES reports that all other potential amenity impacts (such as those from dust, odour, vibration, operational noise and daylight and sunlight effects) will be mitigated by appropriate engineering design and good waste management practice measures.

11.2.55 The benefits of the scheme are dramatic and wide-ranging and evidence of these benefits is presented in many of the documents submitted in support of the planning application, including:

- Planning Application Supporting Statement
- Design and Access Statement
- Sustainability Statement
- Energy and Employment Strategy
- Environmental Statement Chapter 3 - Need
- Environmental Statement Chapter 17 – Socio-Economics

The main benefits of the scheme are listed below.

- Meeting the need for sustainable waste management for a sub-regional area, including the benefits of reduced greenhouse gas emissions to help tackle climate change and avoidance of pollution associated with landfill.
- Generation of renewable energy and steam for heating, resulting in 90% reduction in CO2 emissions from the current Dockyard heating system.
- Helping to tackle climate change by off-setting 35,000 tonnes per annum of CO2 equivalent.

- Jobs – the creation of direct jobs in construction and operation and indirect jobs in the wider economy.

- Jobs and Economy - Approximately £1.9M per annum energy bill savings to Devonport Dockyard and an important contribution to the creation of a sustainable business at HNNB Devonport and the Dockyard, to saving jobs and creating new employment opportunities and as a vital part of the Dockyard regeneration.

- A wide range of community benefits, including the provision of important new community facilities for education and access to improved recreation facilities.

- Enhancements to the biodiversity of the Blackies Wood area, which will become a major educational resource.

11.2.56 The balancing judgement on the acceptability of the limited adverse effects from short-term construction noise and on visual amenity should be made in the context of these extensive wider local, sub-regional and regional-scale benefits, and in the context of the applicant having demonstrated (in Chapter 5 of the ES) that there are no other locations where there would be less overall adverse impacts than at North Yard, and that could offer the same CHP benefits.

11.2.57 The applicant has made significant efforts to ensure that the proposed design, siting and orientation of the EfW CHP building within the site minimises the number of adverse visual impacts. The scheme involves comprehensive noise mitigation measures designed into the operational facility and noise barriers to mitigate construction noise. The scheme also involves soft landscaping and Greenspace enhancement proposals, together with the striking and iconic landmark building design, which make a positive contribution to local townscape, landscape and biodiversity. Indeed, the design, with its connections to the history of Devonport, it is intended to engender a sense of pride and acceptability locally and widely within Plymouth, similar to other iconic architecture elsewhere in the UK.

11.2.58 PASS appendices 3 and 7 demonstrate that proposed Devonport EfW CHP facility is consistent with government sustainable development policy at all levels. Equally, the scale of the sustainability benefits of the proposals can only be realised at the North Yard location, due to the potential to deliver a CHP system by connecting into an existing CHP network in North Yard. The delivery of sustainable development is an overarching objective of national planning policy and overwhelming weight must be attached to the compatibility of the EfW CHP facility with sustainable development policy, (on the economy, communities and the environment) to the extent that this must outweigh what the ES finds likely to be a relatively limited impact on amenity.

11.2.59 It can therefore be concluded that, both in respect of individual amenity topics and on balance relative to the scale of the local, sub-regional and regional sustainable development benefits that the scheme will deliver, the impact of the proposed EfW CHP facility on amenity will not be unacceptable, and that this planning application is compatible with criterion 4 of Policy W7.

Criterion 5: Transport

Introduction

11.2.60 Criterion 5 of Policy W7 states that proposals for waste management development on unallocated sites should:

> *"…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."*

11.2.61 A traffic and transport assessment (TA) has been undertaken and is included as an Appendix to Chapter 12 of the ES. Chapter 12 considers the environmental effects of traffic generated by the proposals.

Access to Principal Road Network

11.2.62 The Site has excellent access to the principal road network, being located adjacent to the Camel's Head entrance to the Dockyard at the western end of the A3064, Weston Mill Drive, which is a Principal Road. Further, the A3064 leads directly to the trunk road network, joining the A38, which is a regionally significant transport route. It is therefore considered that the proposed development will comply with the locational requirements of Criterion 5 of Policy W7 in terms of proximity to the principle road network.

Road Network Capacity

11.2.63 The TA (ES Appendix 12.1) considers the impact of the scheme on three public highway network junctions and concludes that the optimum capacity of each of these junctions is not exceeded due to traffic generated by the scheme. The optimum capacity of one junction (Weston Mill Drive/Carlton Terrace) is predicted to be slightly exceeded in the first year of operation, but this would be the case with or without the development. The TA also considers the capacity and safety of the junction of the proposed new junction within Camel's Head Gate to serve the new access road to the EfW CHP facility site. Again, the TA concludes that the capacity and safety of this junction is adequate.

Criterion 5 Conclusion

11.2.64 The proposed development Site benefits from direct access to the principal road network and good onward access the trunk road network. A full TA, including capacity assessments of significant junctions, has been submitted as ES Appendix 12.1. The TA concludes that all relevant junctions have sufficient capacity to accommodate the vehicle demands.

11.2.65 The proposed development will therefore not have any unacceptable impact on the road network and the proposed development accords with criterion 5 of Policy W7.

Criterion 6: Spatial Planning Objectives

Introduction

11.2.66 Criterion 6 requires that:

"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."

Local Development Framework – Spatial Planning Objectives

11.2.67 The main Local Development Framework document is the core strategy 2006-2021 (CS), which was adopted in 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.

11.2.68 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.

11.2.69 It should be noted that because the Site is not allocated in the Plymouth Development Framework, it therefore does not directly conflict with land use policy based on allocations for specific use types.

11.2.70 **Strategic Objective 1** includes that the delivery of the vision of Plymouth as a strategic city within the South West region will be set firmly in the context of delivering 'Urban Renaissance' and Sustainable Communities, including working towards carbon neutrality through the reduction of consumption, the provision of renewable energy and reducing the need to travel. The proposed development is in accordance with this vision 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 (see ES Chapter 3) and will contribute significantly to the reduction of greenhouse gas emissions by reducing the amount of waste sent to landfill and generating low carbon electricity and heat, which will replace electricity and heat generated from fossil fuels, as described in the Energy and Employment Statement.

11.2.71 The EfW CHP facility also offers the potential to supply CHP to new, energy intensive businesses that could be located in the Dockyard, thus supporting the delivery of the objective for Plymouth to fulfil its potential as the economic hub of the far South-West and to support longer term growth.

11.2.72 **Strategic Objective 2** is concerned with the delivery of the city vision, including quality employment provision and supporting regeneration and diversification. The proposals are squarely behind delivering this vision, 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.

11.2.73 CHP will play an important role in securing a sustainable business future for HMNB Devonport and the Dockyard. Additionally, the MoD has undertaken review of its Devonport operations under Programme Roundel and Vision 25. Land has been released into the private sector to allow regeneration and additional opportunities for local employment. The release of South Yard areas for housing redevelopment by Redrow and yacht manufacture by Princess Yachts are recent examples. Under Vision 25, the Naval Base will be selectively redeveloped to improve operations and the efficient use of space. An initial study has identified areas for disposal and opportunities for improving the efficient use of space as part of a Master Plan.

11.2.74 During the pre-application public consultation exercise undertaken by MVV (see PASS Appendix 2), a number of local people expressed concern about the future of the Naval Base and Dockyard. The proposed EfW CHP facility is a vital part of the Dockyard regeneration and the existence of a CHP network will contribute to the retention of existing employment in the Dockyard and provide the opportunity to market the site to potential new employers. The sustainable source of energy at predictable long term cost will be a strong incentive for investment in new jobs, and a strong catalyst for the retention of HMNB Devonport as the largest base for the Royal Navy and the regeneration of the Dockyard. More detailed evidence on the energy, economic and employment benefits of the EfW CHP facility is provided in ES Chapter 17 and the Energy, Economy, Employment and Education Statement.

11.2.75 **Strategic Objective 3** is about delivering sustainable linked communities. Whilst the EfW CHP scheme is not directly related to the development of communities, 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. This PASS summarises the community benefits offered, including the Section 106 heads of terms, which include a commitment to work with the Council to develop further CHP and district heating opportunities in the City and to share expertise.

11.2.76 **Strategic objective 4** relates to the quality of new development. The proposed EfW CHP technology is a high quality, high efficiency solution to the management of residual waste in the SWDWP area. The iconic and elegant design contributes to the achievement of sub-objective 3, 5 and 7. As described in the DAS, the design of the EFW CHP is a distinct enhancement to the Dockyard vernacular and raises the standard of design for future development. Equally the design evolution has been driven by (and the final design responsive to) a careful analysis of the physical, social and economic context of the site.

11.2.77 **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.

11.2.78 **Strategic Objective 6** concerns the delivery of the economic strategy. Five of the six sub-objectives of Strategic Objective 6 are relevant to the proposed EFW CHP facility and these are addressed in turn, below.

11.2.79 **Strategic Objective 6 (1)** covers the protection and enhancement of the City's unique assets. As described under the consideration of compatibility with Criterion 3, the Environmental Statement accompanying this planning application contains a full assessment of the potential for adverse effects on environmental assets, concluding that adverse effects on environment or heritage assets would be acceptable and the development will contribute significantly to the retention of the Dockyard as an active and vibrant unique characteristic of Plymouth.

11.2.80 **Strategic Objective 6 (2)** relates to delivering a range, mix and quality of employment land/premises to provide for inward investment opportunities and **Strategic Objective 6 (3)** covers opportunities for employment in each neighbourhood. The proposals will not only create employment opportunities in construction and operation roles, (which match the skill sets existing in Plymouth), and indirect jobs in supply industries, but will also 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. Evidence of the economic and employment benefits of the proposals is provided in the EEEEBS (PASS Appendix 4) and ES Chapter 17.

11.2.81 **Strategic Objective 6 (4)** deals with developing Plymouth's skills base / supporting investment in learning infrastructure / promoting local labour on major construction projects. MVV and its contractors will actively encourage the use of local labour and local labour agreements both for the construction and operation of the facility. MVV has also entered into discussions with City College, Plymouth and the University of Plymouth with regard to sponsoring training and apprenticeships. The Section 106 Agreement heads of terms (see PASS Section 2) and the Energy and Employment Strategy (PASS Appendix 4) include details of the mechanisms proposed.

11.2.82 Additionally, the EfW CHP facility will include and administration block, which will incorporate facilities available for use by the community. The facilities will include rooms for meetings and lessons and a viewing balcony, from which it will be possible to view the facility site and the wider North Yard part of HMNB Devonport and the Dockyard. It is proposed that a main purpose of these facilities will be to act as an education resource, ideally with an active link to local schools and colleges, where students can visit to learn about sustainable waste management and energy and about the history and future of the Dockyard. Further, access to Blackies Wood and Weston Mill Creek will be available, which will provide opportunities for recreation and education on biodiversity topics. Community benefits offered are summarised in this PASS, including the S.106 heads of terms.

11.2.83 **Strategic Objective 6 (6)** involves seeking consistency with the Plymouth Local Economic Strategy. The above assessment of consistency with Strategic Objective 6 demonstrates that the proposals are fully consistent with the relevant parts of the six broad aspirations of the Plymouth Local Economic Development Strategy 2006-2021 & Beyond. MVV has committed to working with the City Council to share its expertise in developing District Heating systems for

the benefit of the wider community. More information on the implications of the EfW CHP facility for the Local Economic Strategy can be found in ES Chapter 17.

11.2.84 **Strategic Objective 7** is concerned with the delivery of adequate shopping provision and includes a sub-objective of the promotion of a new food-store as part of a new district centre in the Weston Mill area. The EIA process has taken account of this strategic objective and of the Weston Mill mixed use centre Policy CS07. The Weston Mill neighbourhood is situated to the East of the application site boundary and the EIA process has taken account of the potential for environmental impacts in the area of the proposed district centre development, including the potential effects of changes to traffic flows in the area in the Transport Assessment (ES Appendix 12.1). Chapter 19 of the ES considers environmental effects of the proposed EfW CHP facility in combination with potential effects of other future developments, including the Weston Mill district centre. The ES does not report any 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.

11.2.85 The proposed EfW CHP facility has no positive or negative implications for the delivery of **Strategic Objective 8.**

11.2.86 **Strategic Objective 9** relates to the delivery of educational improvements. Sub-objectives 3 and 4 of Strategic Objective 9 relate to new educational provision and supporting the enhancement of higher education. The proposals for a community and educational facility within the EfW CHP site, as described in this PASS and in the DAS and for provision of support for higher education training and apprenticeships (proposed as a S.106 commitment), are advantageous to the delivery of these objectives.

11.2.87 The proposed EfW CHP facility has no positive or negative implications for the delivery of **Strategic Objective 10.**

11.2.88 **Strategic Objective 11**, Delivering a Sustainable Environment, includes nine sub-objectives relating to the goal of maintaining a clean and sustainable environment.

11.2.89 The EfW CHP facility 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 sub-objectives 1, 2, 3 and 6. The EfW CHP facility generates renewable energy and steam for heating purposes at the Dockyard, replacing existing fossil-fuel-based generators, thereby making a major contribution to the delivery of strategic objectives 4 and 5.

11.2.90 The EfW CHP facility will contribute to delivering sub-objective Objective 7 by employing stringent pollution controls to the standards required by the Environment Agency, thus minimising pollution associated with the management of waste, and significantly reducing pollution levels compared to the current practice of landfilling and the burning of fossil fuel specifically to generate steam and electricity for the Dockyard.

11.2.91 Chapter 11 and Appendix 11.1 of the ES demonstrate that the proposals do not adversely affect the management of flood risk and therefore do not conflict with sub-objective 8. The applicant has engaged extensively with government, other organisations and the local community, as reported in the Statement of Community Involvement submitted with this planning application (PASS Appendix 2). This process has not revealed any evidence that the proposals conflict with the delivery of sustainable and integrated coastal planning, as required by sub-objective 9.

11.2.92 The proposed EfW CHP facility has no positive or negative implications for the delivery of **Strategic Objective 12.**

11.2.93 Core Strategy **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 produce less waste and provide long term sustainable waste management.

11.2.94 ES Chapter 15 and the BREEAM assessment submitted with the planning application demonstrate that the proposals are consistent with the waste minimisation objectives of sub-objective 1. Sub-objective 2 relates to re-use, recycling and composting and whilst the EfW CHP facility does not feature these waste management options, it's capacity has been carefully designed to manage the residual waste, left over once ambitious targets for re-use, recycling and composting have been met in the future by the SWDWP authorities, i.e. it does not prejudice the delivery of sub-objective 2, by treating waste that would otherwise by recycled or composted.

11.2.95 The EfW is firmly in line with sub-objectives 3, 4 and 5, by delivering residual waste management capacity for municipal and commercial and industrial waste arising in Plymouth and adjoining areas and by doing so in a way that maximises the sustainability potential of waste management by the inclusion of CHP and by avoiding unacceptable impacts on the local and global environmental quality, as evidenced by the ES submitted with this planning application, the conclusions of which are summarised in the assessment against Policy W7 criteria 3 and 4 above.

11.2.96 **Strategic Objective 14** relates to the delivery of sustainable transport and sub-objectives 5, 6 and 7 are relevant to the EfW CHP proposals. The use of alternatives to road transport have been considered and rejected for a range of practicability reasons, as reported in ES Chapter 5. Road safety, congestion and the potential adverse impacts of traffic serving the facility have been considered in the Transport Assessment and in several of the ES chapters, including those on noise and air quality. The assessments demonstrate that, when the proposed new access junction arrangements and controls over the timing of certain HGV trips, together with a financial contribution to future junction improvements, these strategic objectives are not compromised.

11.2.97 **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. Overall the proposed scheme is highly unlikely to interfere with the successful implementation of any of the measures in Plymouth's Health, Social Care & Well-being Strategy that are intended to address priority health and well-being inequalities within Plymouth and therefore the effect of the scheme (with incorporated mitigation) on health and well-being is considered to be negligible. Therefore the effect of the scheme (with incorporated mitigation) on health and well-being is considered to be negligible and any fears of potential health and well-being effects are unlikely to be objectively justified. These conclusions demonstrate 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 S.106 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.

11.2.98 The spatial planning objectives contained within the Plymouth Waste Development Plan Document (adopted 2008) are reproduced from Core Strategy Strategic Objective 13, which are addressed in Appendix 7 to the PASS.

11.2.99 The **design supplementary planning document, "sustainable design in Plymouth"** (adopted 2009) (the Design SPD), was prepared as part of actions by Plymouth City Council to deliver the Core Strategy Strategic Objective 2, which is addressed above. A more detailed response to the Design SPD is provided in the DAS (PASS Appendix 1) submitted with this planning application.

11.2.100 The emerging **Sustainable Neighbourhoods DPD**[19] (including key site allocations) is being prepared by Plymouth City Council to identify major sites that might be required to meet Plymouth's future needs, as outlined by the Core Strategy, as well as making suggestions to guide development that will address the needs of local communities and to identify areas that should be protected from development.

11.2.101 The DPD is at the issues and preferred options stage, but already identifies some key issues within the neighbourhoods closest to the proposed development site that should be addressed in all development.

11.2.102 In February and March 2011 Plymouth City Council undertook public consultation on a number of proposals for the City's neighbourhoods. The EfW CHP site is located within the neighbourhood of Barne Barton, but is also close to the neighbourhoods of Keyham and Kings Tamerton & Weston Mill.

11.2.103 A Draft 'Sustainable Neighbourhood Plan' has been prepared for the neighbourhood of Barne Barton. Key issues that arise in relation to the sustainability of the local neighbourhood in which the MVV EfW CHP development will sit include:

[19] Plymouth City Council, Sustainable Neighbourhoods Development Plan Document, Draft for Consultation, January 2011

- Poor condition of open space and public areas. Access to much of the public open space is controlled by the MoD and not made available to residents. Opportunities should be taken to improve public access to the waterfront and open spaces;
- Lack of local employment opportunities, with one of the lowest job-to-resident ratios in Plymouth;
- Long journeys to work, with fewer residents able to walk or cycle to work;
- Poor health and high social deprivation, including concerns about crime;
- Inadequate provision of community facilities and local shopping services.

11.2.104 Similar issues exist in Keyham and Kings Tamerton & Weston Mill. In Keyham, there are good local employment opportunities, but these are dominated by the Dockyard, making employment prospects vulnerable to change. Kings Tamerton & Weston Mill has the lowest job to residents ratio in Plymouth and public green space is inadequate.

11.2.105 The MVV development proposals recognise the poor condition of open space and public areas in the neighbourhood and seek to address this by providing a new informal sports pitch/play area and improving the ecological condition of and access to the adjacent woodland and Local Greenspace Area (Blackies Wood). Access to Blackies wood will be available to school parties etc, and will form an important educational resource of a type in short supply in the area. The development will create employment and training opportunities for local residents, through the construction, operation and maintenance contracts of the site and facilities and apprenticeships in conjunction with local colleges.

11.2.106 For those residents who gain employment at the site, the length of journeys to work will be short. Residents will be able to take advantage of opportunities to walk or cycle to the site, as secure cycle storage will be provided. The provision of an informal sports pitch/play area on land just north of Blackies Wood and the site will contribute to tackling poor health of the local community. The visitor centre will provide a local community facility for educational purposes, as well as a local meeting space.

11.2.107 Evidence of compatibility with the emerging sustainable neighbourhoods DPD can be found in: PASS, EEEEBS, and ES Chapter 17.

Criterion 6 Conclusion

11.2.108 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 objective and help to directly deliver the waste management objectives. It is therefore considered that the development proposals accord with criterion 6 of Policy W7.

Policy W7 Conclusion

11.2.109 The evaluation presented above demonstrates that the proposed development is in accordance with criteria 1-6 of policy W7 and is therefore in accordance with Policy W7 as a whole.

11.3 Policy W8

11.3.1 Plymouth Waste Core Strategy Policy W8 applies to all applications for planning permission for waste management development. Policy W8 has 12 sub-criteria, several of which overlap or duplicate the criteria of Policy W7. Section 6.3 of PASS Appendix 7 includes a detailed consideration of the compatibility of the EfW CHP Facility proposals with Policy W8. This assessment is summarised below.

Criterion 1: Impacts on Environmental, Social or Economic Assets.

11.3.2 The environmental impacts of the proposed development have been assessed by the Environmental Statement and are considered in relation to criterion 3 of Policy W7, above. The social and economic impacts of the development are also considered in Chapter 17 Socio-economics of the Environmental Statement, which draws on evidence in the EEEEBS. Chapter 17 concludes that the proposed development would have an overall beneficial impact on Plymouth and the South West's economies.

Criterion 2: Adverse Amenity Impact Mitigation

11.3.3 The adverse amenity impacts of the proposed development have been assessed by the Environmental Statement and are considered in relation to criterion 4 of Policy W7, above.

Criterion 3: Adverse Health Impact Mitigation

11.3.4 The proposed development will 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.

11.3.5 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. Overall the proposed scheme is highly unlikely to interfere with the successful implementation of any of the measures in Plymouth's Health, Social Care & Well-being Strategy that are intended to address priority health and well-being inequalities within Plymouth and therefore the effect of the scheme (with incorporated mitigation) on health and well-being is considered to be negligible. Therefore the effect of the scheme (with incorporated mitigation) on health and well-being is considered to be negligible and any fears of potential health and well-being effects are unlikely to be objectively justified.

Criterion 4: Pest/Vermin Mitigation

11.3.6 The proposed development will be a modern, state-of-the-art 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. The plant will also be regulated by the Environment Agency and will require an Environmental Permit to operate, which will good operational practices to control pests and vermin.

Criterion 5: Standard of Design

11.3.7 The DAS (PASS Appendix 1) describes the design and landscape strategy. Chapter 8 of the ES considers landscape and visual impacts, and concludes that the facility will result in some positive effects on local landscape character and that here are likely to be some significant adverse effects on a small number residential viewpoints, but that the design of the facility and the landscape strategy appropriate and sufficient to mitigate the adverse visual impacts classified by the EIA methodology as significant.

Criterion 6: Transport

11.3.8 The impacts of the proposed development have been assessed by the Environmental Statement (Chapter 12) and by a Transport Assessment and are considered in relation to criterion 5 of Policy W7, above.

Criterion 7: Vehicle Movement within Site

11.3.9 Section 6.4 of the Environmental Statement describes access, circulation, parking and security. The internal road and pedestrian area layout has been designed to allow the safe movement of vehicles and pedestrians and with regard to relevant health and safety legislation and good industry practice. Detailed calculations have been made of the vehicle movements expected to arrive at and depart from the EfW CHP facility. These calculations can be found in Chapter 12: Transport Assessment of the Environmental Statement. The DAS also includes a description of the incorporated measures for safe access and circulation within the site.

Criterion 8: Adverse 'Other' Impact Mitigation

11.3.10 The site is outside the MoD's dockyard explosive safeguarding zone and so no additional measures are required for building design. A Warships in Harbour Risk Assessment, Nuclear Safety Case Risk Assessment and Helicopter Flight Path Risk Assessment have all been carried out by the MoD (see Appendix 6.1 to the Environmental Statement) and no restrictions on the proposed EfW CHP facility have been identified.

Criterion 9: Spatial Planning Objectives

11.3.11 The impact of the proposed development on spatial planning objectives is considered under criterion 6 of Waste DPD Policy W7 above, which concludes that the proposals are in accordance with and help to deliver many of, the relevant objectives.

Criterion 10: Sustainable Waste Management

11.3.12 The impact of the proposed development on sustainable waste management and relevant waste planning policy is considered under criterion 1 of Waste DPD Policy W7 above, which concludes that the proposed development is in accordance with the policy.

Criterion 11: Sustainable Design

11.3.13 A BREEAM Pre-Assessment has been prepared and is included part of the CCSS (Appendix 3 to the PASS). The Pre-Assessment demonstrates that the development achieves an 'Excellent' design rating.

Criterion 12: Climate Change and Sustainability Statement

11.3.14 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 and concludes that the development proposals are in accordance with sustainable development policy at the national, regional and local level.

12 Conclusions

12.1.1 Section 38 of the Planning and Compulsory Purchase Act 2004 requires that the determination of this planning application should be made in accordance with the development plan, unless material considerations indicate otherwise.

12.1.2 Other important material considerations for this planning application include national planning policy, national, regional and local waste management policy and strategy, other policy and strategy and the views of stakeholders, including statutory and non-statutory organisations and the community. The applicant undertook an extensive review of the development plan and these other material considerations and concluded that the main planning considerations that are relevant to this planning application cover three broad themes of 'need', 'sustainable development' and 'environmental effects and amenity impacts'.

Need

12.1.3 There is an established need for an energy from waste (EfW) facility of the size proposed. The South West Devon Waste Partnership (SWDWP) has, after many years of research and evaluation of alternative policy options, drawing on independent advice, selected a single EfW facility in Plymouth as its preferred solution for the management of residual municipal solid waste from the Partnership area. The amount of residual municipal solid waste treatment capacity required over the life of the contract has been forecasted by the SWDWP, based on best available evidence and independent advice and has been reviewed during the procurement process. This amount of residual waste allows for recycling initiatives that aim to meet and exceed national policy targets for recycling. The applicant, MVV, has signed a contract with the SWDWP to deliver the preferred solution, of the capacity required by the SWDWP, at North Yard, Devonport. The proposed EfW combined heat and power (EfW CHP) Facility will also deal with some of the local residual commercial and industrial waste that government says will need to be diverted away from landfill in the future.

Sustainable Development

12.1.4 Delivering sustainable development is a key objective of national planning policy and is a central theme of the strategic objectives of the Plymouth Core Strategy. The Localism Bill and recent government policy statements demonstrate that great weight should be given to the delivery of sustainable development objectives when determining planning applications.

12.1.5 The thrust of national planning policy across all relevant Planning Policy Statements, reinforced by recent ministerial policy statement, is that in determining planning applications, local planning authorities should give great weight to the sustainable economic benefits of development. In circumstances where development proposals are in accordance with sustainable development principles established in national policy, the sustainable economic development benefits of development proposals may need to outweigh limited local impacts, where these can be made acceptable by mitigation or compensatory measures.

12.1.6 An evaluation of potential alternative sites concluded that there was no available alternative site which would not have similar, other, or lesser, adverse environmental effects, or more deliverable combined heat and power, compared to the proposed EfW CHP Facility at North Yard, Devonport. The potential to supply CHP to the Her Majesty's Naval Base Devonport and Devonport Dockyard and the opportunity, because of the specific North Yard location, to deliver major social and economic benefits to the Dockyard as a whole, its community and Plymouth City, combined with a favourable evaluation against other environmental, amenity and sustainability criteria, led the applicant to select North Yard as its preferred location for the EfW CHP facility.

12.1.7 Alternative options modelling undertaken by the SWDWP, and an analysis of waste travel-time undertaken by the applicant, demonstrates that locating an EfW facility in Plymouth is consistent with national planning policy on the relationship between where waste arises and where it is managed.

12.1.8 The proposed EfW CHP facility will deliver sustainable waste management. But, the particular location of the Facility within the Dockyard offers deliverable CHP, and the unique opportunity to deliver truly outstanding sustainable development that will make a significant contribution to meeting the City of Plymouth strategic economic objectives relating to regeneration and jobs.

Environment and Amenity

12.1.9 This planning application is accompanied by an Environmental Statement (ES), which is a report of the environmental impact assessment of the development proposals. The content of the ES accords with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended).

12.1.10 The scope of the environmental impact assessment was agreed formally with the Planning Authority through the request for and receipt of a Scoping Opinion.

12.1.11 The results of the environmental impact assessment take account of the proposed design of the Facility, which incorporates a wide range of measures to minimise environmental effects. The Environmental Statement concludes that the scale of the EfW CHP building will cause some localised adverse effects on visual amenity and short-term noise effects from construction, but that the siting, design and landscape strategy and noise mitigation measures minimise these effects to an acceptable degree.

The Development Plan

12.1.12 Proposals for waste management development should comply with the criteria of Waste DPD Policy W8. Further, the North Yard site is not allocated in the development plan for waste management development. However, in accordance with the requirement for flexibility set out in Planning Policy Statement 10, Policy W7 of the Plymouth Waste Development Plan Document allows planning permission to be granted for the development of waste management facilities on unallocated sites, subject to the proposed development satisfying certain criteria.

12.1.13 The proposed EfW CHP Facility is in accordance with all of the criteria of Policy W8 and W7. Criterion 4 of Policy W7 seeks to ensure that waste management development does not result in unacceptable impact on residential amenity, and this is of particular note because of the proximity of the site to residential areas and the localised impacts on visual amenity and short-term, localised effects from construction noise acknowledged in the Environmental Statement. In the case of this development, the siting, design, landscaping and noise mitigation measures minimise these adverse effects to an acceptable degree. Additionally, the development will bring wider economic and sustainable development benefits that national planning policy affords great weight in planning decisions. It is therefore concluded that these adverse effects are acceptable.

Concluding Comments

12.1.14 The EfW CHP Facility has been designed to interact with the local community and to generate pride in a valuable community resource and in a striking, iconic landmark building which is intended to encourage community acceptance of the facility that communicates its contribution to a secure, sustainable economic future for the historic Dockyard.

12.1.15 The proposed EfW CHP facility is consistent with the development plan and with the other relevant aspects of national planning policy and waste management strategies and it is concluded that planning permission should be granted for the proposed EfW CHP facility, which will be an outstanding example of a truly sustainable building, at the heart of a sustainable neighbourhood.