

Plymouth City Council  
Development Control  
Civic Centre  
Plymouth  
Devon  
PL1 2AA

FAO Alan Hartridge

Our Ref: D123356/Sequential Test

Your Ref:

Date: 07 September 2011

Dear Sir,

### **Energy from Waste Combined Heat and Power Facility North Yard, Devonport – Sequential Test**

Please accept this letter as evidence that the Planning Policy Statement 25 (PPS25): Development and Flood Risk Sequential Test has been adequately carried out for the proposed Energy from Waste (EfW) Combined Heat and Power (CHP) Facility at North Yard Devonport, Plymouth.

This Sequential Test letter should be read in conjunction with:

- Level 3 Flood Risk Assessment (FRA); and,
- Chapter 5: Alternatives to the Proposed Development of the Environmental Statement submitted with the planning application.

Environment Agency Standing Advice on undertaking the Sequential Test has been followed (accessed online: [http://www.environment-agency.gov.uk/static/documents/Research/FRSA\\_LPA.pdf](http://www.environment-agency.gov.uk/static/documents/Research/FRSA_LPA.pdf)). The Standing Advice document is appended to this letter for convenience and the tests within it are dealt with in turn below. Extracts from the Standing Advice document are shown in *italics*.

Based on the Environment Agency Standing Advice, flood risk is only one of a number of topics of equal value which have to be considered. The assessment (see page 7 below) and the alternative site evaluation in Environmental Statement Chapter 5, conclude that there are no alternative sites with a lower probability of flooding which would be appropriate for the EfW CHP Facility. Proposed mitigation to raise the levels along the small section of access road within flood zone 2 would ensure the site of the proposed EfW CHP Facility would be entirely within flood zone 1.

### **Stage 1: Strategic Application and Development Vulnerability**

#### *1.1. Has the Sequential Test already been carried out for this development at development plan level?*

No. The site of the proposed EfW CHP facility at North Yard, Devonport, was not allocated in the Plymouth City Council Waste Development Plan Document (DPD) published in 2008. However, Policy W7 provides that proposals for the development of strategic, large scale or local waste management facilities on sites not allocated in the Waste DPD will be permitted where they meet certain criteria (analysis of the proposed development against these criteria is provided separately in the Planning Application Supporting Statement).

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*1.2. Is the flood risk vulnerability classification of the proposal appropriate to the Flood Zone in which the site is located according to Tables D1 and D3 of PSS25?*

Yes. The significant majority of the site is in Flood Zone 1, except for a small section (< 5 %) of the site along the proposed access road which falls within Flood Zone 2. Proposed mitigation will raise levels along this section. The Flood Risk Assessment concludes therefore that the entire site including the access road is located within Flood Zone 1 post development, taking into account climate change over the development's lifetime.

The Flood Risk Assessment also concludes that the proposed level changes along the access road would not diminish the fluvial floodplain, and therefore no floodplain compensatory storage is required.

The proposed EfW CHP facility is classified as 'less vulnerable' development, whilst the access road is classified as 'essential infrastructure' in accordance with PPS25, Table D.2. Table D.3 indicates that 'less vulnerable' and 'essential infrastructure' developments are considered appropriate in either Flood Zone 1 or Flood Zone 2.

Because one of the questions above was answered 'no' it is necessary to progress to Stage 2.

## **Stage 2: Defining the Evidence Base**

*2.1. State the geographical area over which the test is to be applied.*

*2.2. If greater or less than the district boundary justify why the geographical area for applying the test has been chosen.*

*2.3. Identify the source of reasonably available sites.*

All three questions are dealt with together as follows.

Chapter 5 of the Environmental Statement describes an assessment undertaken by the applicant of the potential suitability of alternative sites and the reasons that the North Yard, Devonport, site was selected as the proposed location for the EfW CHP facility.

The proposed EfW CHP Facility is being commissioned to manage municipal solid waste (MSW) from the South West Devon Partnership (SWDWP) Area. The area of search has thus included the SWDWP catchment, which comprises of the South Hams, West Devon and (part of) Teignbridge districts of Devon as well as the Plymouth and Torbay administrative areas.

Potential alternative sites were sourced from the Plymouth City Council Waste DPD (2008) and the Devon County Council Waste Local Plan (LP) (2006). Only those listed as being potentially suitable for an EfW facility were considered:

### Plymouth City Council Waste DPD

- Proposal W1 – Coypool China Clay Works; and
- Proposal W2 – Land West of Ernesettle Lane.

### Devon County Council Waste LP

- SH17 – New England Quarry (South Hams);
- SH52 – Wrangaton (South Hams);
- TE13 – Heathfield Landfill Site (Teignbridge);
- TE51 – Heathfield Industrial Estate (Teignbridge); and
- WD07 – Crowndale, Tavistock (West Devon).

Torbay Council adopted its Local Plan in 2004, but does not allocate any specific sites for strategic waste management use such as EfW.

In addition, the applicant also considered alternative sites that had been identified on a 'short list' in Table B2 of a preparatory evidence base study carried out by Entec for Plymouth City Council (Plymouth Waste Development Plan Document: Search for Potential Waste Management Sites, Entec, 11 July 2005). Some additional sites were also considered, in discussion with officers of Plymouth City Council,

because of their potential for CHP connection. The list of 24 alternative sites considered is presented in Table 5.7(c) of Chapter 5 of the Environmental Statement and also in the table overleaf.

*2.4. State the method used for comparing flood risk between sites.*

The Environment Agency Flood Map (Flood Zones 2 and 3) has been used as the method for comparing flood risk between the sites. Where additional, site-specific information is available this is also referenced. Extracts from the Flood Map for each of the sites are appended to this letter for convenience.

### **Stage 3: Applying the Sequential Test**

*Compare the reasonably available sites identified under Stage 2 with the application site. Sites should be compared in relation to flood risk; development plan status; capacity; and constraints to delivery including availability, policy restrictions, physical problems or limitations, potential impacts of the development, and future environmental conditions that would be experienced by the inhabitants of the development.*

*3.1. State the name and location of the reasonably available site options being compared to the application site.*

*3.2. Indicate whether flood risk on the reasonably available options is higher or lower than the application site.*

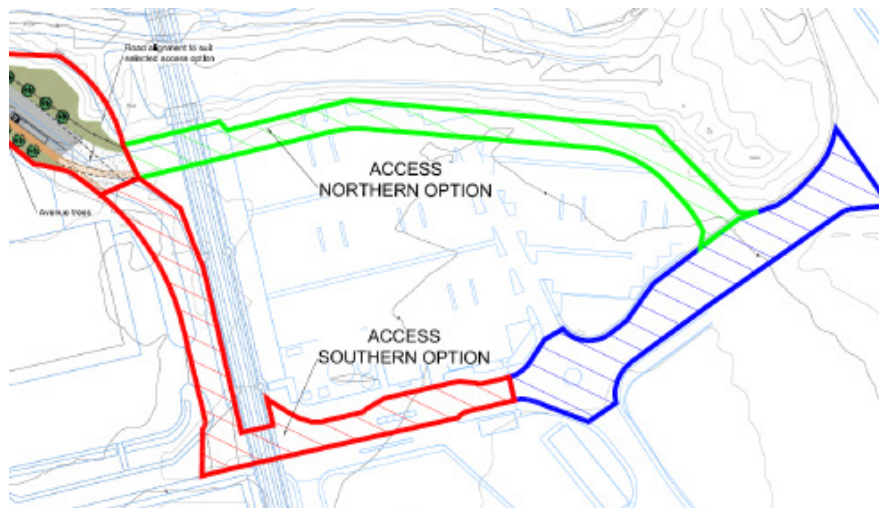
*3.3. State whether the reasonably available options being considered are allocated within the Development Plan.*

All three questions are dealt with together in the table overleaf.

Name and Location of Site	Flood Risk Status	Flood Risk Higher or Lower Than Application Site	Allocated Within Development Plan as Suitable for EfW
North Yard, Devonport*	Predominantly Flood Zone 1, except for a small section (< 5 %) along proposed access road within Flood Zone 2. Proposed mitigation will raise levels to ensure entire site is within Flood Zone 1.	-	Not allocated
E01, Chelson Meadow, Waste Management	Predominantly Flood Zone 1. Small area in south west corner in Flood Zone 3 but benefiting from flood defences.	Approximately equal risk	Not allocated
E02, Moorcroft Quarry, Billacombe	Flood Zone 1.	Lower risk	Not allocated
E07, Land off St. Budeaux By Pass, St Budeaux	Predominantly Flood Zone 1. Small area in south west corner in Flood Zone 3.	Higher risk	Not allocated
E14, Plymbridge Industrial Estate	Predominantly Flood Zone 1. Small area in north east corner in Flood Zone 3.	Higher risk	Not allocated
E19, British Gas Site, Breakwater Road	Predominantly Flood Zone 1. Western flank appears adjacent to, possibly within, Flood Zone 3.	Approximately equal risk	Not allocated
E21, Water Treatment Works, Glacis Park, Tavistock Road	Predominantly Flood Zone 1. Small area on south west edge in Flood Zone 3.	Higher risk	Not allocated
E47, Prince Rock Depot	Flood Zone 1.	Lower risk	Not allocated
E48, China Clay Works, Coypool	Flood Zone 1.	Lower risk	Yes, under Proposal W1 of the Plymouth Waste DPD
E50, Land at Estover Gate	Flood Zone 1.	Lower risk	Not allocated
E52, Land at Burrington Industrial Estate	Flood Zone 1.	Lower risk	Not allocated
E53, Employment Land Commitment, Ernesettle	Flood Zone 1.	Lower risk	Not allocated
E54, University of Plymouth Playing Fields	Flood Zone 1.	Lower risk	Yes, under Proposal W2 of the Plymouth Waste DPD
E55, Southway Redevelopment Area	Flood Zone 1.	Lower risk	Not allocated
E57, Plymouth Airport Redevelopment	Flood Zone 1.	Lower risk	Not allocated
E58, Forder Valley	Flood Zone 1.	Lower risk	Not allocated
E69, Agaton Farm, Ernesettle	Flood Zone 1.	Lower risk	Not allocated
South Yard	Flood Zone 1.	Lower risk	Not allocated

Name and Location of Site	Flood Risk Status	Flood Risk Higher or Lower Than Application Site	Allocated Within Development Plan as Suitable for EfW
New England Quarry	Predominantly Flood Zone 1 but peripheral parts of site within Flood Zones 2 and 3. Planning application by Viridor also includes section of access road through Flood Zones 2 and 3 to east of allocated site.	Higher risk	Yes, under Devon County Waste Local Plan
Heathfield Landfill Site	Predominantly Flood Zone 1 but western tip Flood Zone 2	Approximately equal risk	Yes, under Devon County Waste Local Plan
Heathfield Industrial Estate	Predominantly Flood Zone 1 but north eastern tip Flood Zone 2	Approximately equal risk	Yes, under Devon County Waste Local Plan
Crowndale, Tavistock	Predominantly Flood Zone 1 but southern part of site within Flood Zones 2 and 3.	Higher risk	Yes, under Devon County Waste Local Plan
Langage	Flood Zone 1.	Lower risk	Not allocated
Wrangaton	Flood Zone 1.	Lower risk	Yes, under Devon County Waste Local Plan

\* Note that two potential access routes into the North Yard site were considered during early design development, as follows:



The Southern Option, through the main access used by all traffic entering the dockyard at the Camel's Head entrance, beneath the railway viaduct, then running northwards parallel to the railway viaduct towards the proposed weighbridge.

The Northern Option, along the outer edge of the MoD car park, beneath the railway viaduct, towards the proposed weighbridge.

The Southern Option would have required the relocation of MoD security arrangements so the Northern Option was selected and now forms part of the proposed development. The important point to note in relation to the Sequential Test is that both options would have involved construction in Flood Zone 2 in the area between the viaduct and the weighbridge.

*3.4. State the approximate capacity of each reasonably available site being considered.*

The wording of the Standing Advice document refers to 'density policy'. This is taken to relate to residential development and we therefore do not consider that it is relevant to proposed waste management development.

*3.5. Detail any constraints to the delivery of identified reasonably available options.*

A full analysis of the 24 alternative sites considered and their relative merits, including constraints to delivery, can be found in Environmental Statement Chapter 5. Importantly, this analysis concluded that no site outside HMNB Devonport offered the same potential for deliverable CHP as North Yard.

Evidence that the Coypool site is not available is summarised in paragraphs 5.3.91 – 5.3.93 of Environmental Statement Chapter 5.

The Entec Technical Note on Coypool (2007) states that the site is owned by Imerys and one other private land owner and, at paragraph 2.2, that access is via a private road.

The Entec Technical Note on Ernesettle (January 2008) states, at paragraph 7.1, "*The City needs to overcome the risk (potential land ownership constraints) associated with achieving delivery through a single site (Coypool).*", which indicates that ownership constraints at the Coypool site were a significant issue at that time, in preparation for the Waste DPD examination (February 2008).

As noted in paragraph 5.3.92 of Environmental Statement Chapter 5, the SWDWP considered the potential of the Coypool site but was unable to take this site forward, due to multiple and complicated land ownership/lease issues and access difficulties to the site which prevented it being secured as a viable site for the Partnership's long-term solution.

SWDWP has confirmed that, at least until the outset of the tendering period in 2009, the freehold of the Coypool site was divided between Imerys and a private owner, with the latter ownership being leased to Imerys until 2016 for their china clay operations. Between 2005 and 2008, Plymouth City Council, in recognition of its future waste management needs, actively sought to acquire an interest or ownership of the site. However, following its investigations and confidential commercial negotiations, Plymouth City Council concluded that the ownership and business interests of the land-owners, alongside challenges in securing a suitable access to the site, were such that there would be on-going delay to the availability of the site and that this delay would not be consistent with the required service commencement date of the SWDWP contract. Further, Plymouth City Council considered options to acquire the site by Compulsory Purchase Order, but concluded that such a course of action would be likely to be prohibitively expensive, difficult to justify given available alternative sites and would again fail to meet the timescales required to deliver a solution for SWDWP.

Further evidence to support the conclusion that Coypool was not available within the timescale required by the SWDWP project programme is that none of the SWDWP contract bidders proposed a facility at Coypool at ISDS stage.

MVV has confirmed that the position described above by SWDWP was revisited and confirmed by MVV in its consideration of potentially available sites. MVV made approaches to the agent for the Coypool land owner in 2011, which indicated that the landowner was unwilling to sell the land to MVV as a waste management site.

National planning policy (PPS10, paragraph 18) states that, in identifying land for waste management facilities, waste planning authorities should:

*"avoid unrealistic assumptions on the prospects, for the development of waste management facilities, ..... having regard in particular to any ownership constraint which cannot be readily freed, other than through the use of compulsory purchase powers."*

The above evidence indicates that the Coypool site is not readily available and is not as suitable as North Yard on the basis of availability and deliverability.

## Sequential Test Conclusion

*Are there any reasonably available sites in areas with a lower probability of flooding that would be appropriate to the type of development or land use proposed?*

There are a number of alternative sites that are located entirely within Flood Zone 1, i.e. are at theoretically lower risk of flooding (it should be noted that post development the HMNB Devonport site would also be entirely within flood zone 1 due to the raising of the levels along the small section of the access road within flood zone 2). However, as stated in the Environment Agency Standing Advice, the Sequential Test is required to consider a number of other factors in addition to flood risk when comparing the suitability of alternative sites:

*"Sites should be compared in relation to flood risk; development plan status; capacity; and constraints to delivery including availability, policy restrictions, physical problems or limitations, potential impacts of the development, and future environmental conditions that would be experienced by the inhabitants of the development."*

The content of Chapter 5 of the Environmental Statement forms an essential part of the Sequential Test as it provides an evaluation methodology for comparing alternative sites, which takes into account a wide range of environmental constraints and planning policy requirements.

The waste travel-time analysis demonstrates that the North Yard site is in accordance with development plan and national planning policy on the location of waste management facilities in relation to areas of waste arisings.

The results of the application of the site assessment methodology in Environmental Statement Chapter 5 to the North Yard Site reveal that the site has a number of significant benefits and the applicant's assessment of the potential alternative sites concluded that no site outside of HMNB Devonport offered the same potential for deliverable CHP as North Yard. It is important to note that other, allocated sites have been allocated as suitable for EfW but not necessarily for EfW with CHP.

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 broadly 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. In coming to this conclusion, the weight that should be applied to the requirements of national and local planning policy to address the causes of climate change and to promote economic regeneration, when identifying sites for new development, was an important consideration.

The significance of potential impacts of developing a EfW CHP Facility at North Yard, including amenity and visual impact, has been considered in detail in the Environmental Statement. The findings of the EIA are presented in the various topic chapters and a value judgement on the balance between the benefits and dis-benefits of the North Yard site is presented in the Planning Application Supporting Statement. This judgement concludes that, on balance, the major local, sub-regional and regional-level benefits of the EfW CHP scheme outweigh any dis-benefits of the scheme and that the North Yard site is an appropriate location for the EfW CHP facility.

Further, the analysis presented in Section 5.3 of Environmental Statement Chapter 5 confirms that there is no available alternative site which would not have similar, other, or lesser, adverse environmental effects to the proposed EfW CHP development at North Yard, Devonport.

Based on the above assessment and the evaluation methodology provided in Chapter 5 of the Environmental Statement it is considered that no alternative sites in areas with a lower probability of flooding would be appropriate for the EfW CHP facility.

It is also important to reiterate the statements made earlier in this letter that the small section of access road falling within Flood Zone 2 comprises less than 5% of the total area of the proposed development; that proposed mitigation will raise levels along this section of access road to ensure that the entire site is located in Flood Zone 1 post development; and that, notwithstanding that, 'essential infrastructure' such as the access road constitutes appropriate development according to PPS25, Table D.3.

Can you please confirm that Plymouth City Council is satisfied that the site allocation process has taken into account the PPS25 Sequential Test and that no objections will be made on these grounds.

Yours sincerely  
for **URS Scott Wilson Ltd**



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cc Sarah Squire, Environment Agency, Planning Liaison Officer

Encs.

Environment Agency Standing Advice: Demonstrating the Flood Risk (PPS 25) Sequential Test for Planning Applications.

Extracts from the Environment Agency Flood Map for the 24 sites considered.