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Perry's Farm, Isle of Grain  
Proposed Hazardous Waste Management Facility

Application for Development Consent Order  
The Planning Act 2008 as amended

Request for Scoping Opinion

SLR Ref : 402-02536-00005

November 2013



Version: Rev 1

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Scoping Response Medway Council – 26<sup>th</sup> May 2010

## **1.0 INTRODUCTION**

Peel Environmental Ltd has commissioned SLR Consulting Ltd. (SLR) to produce a scoping report for an environmental impact assessment (EIA) in respect of proposals for a potential hazardous waste management facility at Perry's Farm on the Isle of Grain in Kent. The proposed facility would include a hazardous waste landfill and a hazardous waste treatment facility.

Initial discussions were held with Medway Council in 2010 resulting in the receipt of a scoping opinion from Medway Council on 26th May 2010 (Appendix 1). A pre-application meeting was held with Medway Council in July 2011.

Following the introduction of the Planning Act 2008 responsibility for determination of applications for hazardous waste facilities of the scale proposed at Perry's Farm has passed to the Planning Inspectorate and the ultimate decision rests with the Secretary of State. Therefore this new scoping submission is being submitted to the Planning Inspectorate.

A preliminary meeting was held with Planning Inspectorate on 26 April 2012 in order to discuss the DCO application process and the requirements for consultation.

This scoping report provides an overview of the site, a description of the development proposals, identifies potential environmental impacts and reviews the policy context which could affect the development in this location.

It has been prepared in order to obtain a formal opinion from the Planning Inspectorate's National Infrastructure Directorate on the 'scope' of the Environmental Statement (ES) to accompany the application for a development consent order.

### **1.1 Peel Environmental Limited**

Peel Environmental Ltd is a wholly owned subsidiary of the Peel Group, The Peel Group is one of the leading infrastructure, investment and real estate companies in Britain with assets valued in excess £6 billion.

Peel Group includes the Medway Ports - the Port of Sheerness and Chatham Docks. These form part of Peel Ports, the UK's second largest port group, which also includes the Port of Liverpool, the Manchester Ship Canal, the Port of Heysham and Clydeport in Scotland.

### **1.2 Environmental Impact Assessment**

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) implement Council Directive No 85/337/EEC (as amended) on the assessment of the potential effects of specified development proposals on the environment. The Secretary of State is prohibited from making an order granting development consent for EIA development without having taking the environmental information produced into consideration. Responsibility for compiling information regarding environmental effects lies with the developer, and the information is presented as an 'Environmental Statement'.

The EIA Regulations specify the types of development for which an EIA is mandatory (EIA development). This includes Schedule 1 Projects and categories of development where an EIA may be required (Schedule 2 Projects). A proposed hazardous waste landfill falls under Schedule 1 of the EIA Regulations.

Under Article 6 of the EU Habitats Directive (92/34/EEC), transposed into UK law through The Conservation of Habitat and Species Regulations 2010, a Competent Authority (in this case the Secretary of State) is to make an Appropriate Assessment of the implications for European sites in view of a site's conservation objectives, before deciding to undertake, or give consent, permission or other authorisation for, a plan or project which:

- i. is not directly connected with or necessary to the management of that site; and
- ii. is likely to have a significant effect thereon, either individually or in combination with other plans and projects in view of its conservation objectives.

As there are two European sites within close proximity to the proposed development, namely the Medway Estuary and Marshes Special Protection Area (SPA) / Ramsar site and the Thames Estuary and Marshes SPA / Ramsar site, it will be necessary to consider whether the proposed development is likely to significantly affect the European sites. If likely significant effects cannot be ruled out a Habitats Regulations Assessment will be undertaken and the Competent Authority will be required to consider whether the project will adversely affect the integrity of these European sites, either individually or in combination with other plans or projects, in terms of the conservation objectives and in respect of each interest feature for which the site was classified as SPA under the EEC Council Directive on the Conservation of Wild Birds (Directive 79/409/EEC – The Birds Directive) or Ramsar site under the Ramsar Convention.

### **1.3 Scoping Exercise**

The proposed development comprises the construction of a new hazardous waste management facility for the disposal of hazardous waste by landfill with a capacity of more than 100,000 tonnes per year and a treatment facility for hazardous waste with a capacity of more than 30,000 tonnes per annum. It is therefore is a Nationally Significant Infrastructure Project in accordance with Section 14(1)(p) and Section 30 of the Planning Act 2008 as amended.

Having established that an Environmental Statement will be required to accompany the proposed application, this report forms a written request to the National Infrastructure Directorate of the Planning Inspectorate, under Regulation 8 of the EIA Regulations, for its opinion as to the information to be provided in the Environmental Statement.

Referring to Regulation 8(3), requests for Scoping Opinions should be accompanied by:

- “a plan sufficient to identify the land;
- a brief description of the nature and purpose of the development and of its possible effects on the environment; and
- such other information or representations as the person making the request may wish to provide or make.”

The purpose of the scoping exercise is:

- to focus the EIA on the environmental issues and potential impacts which need the most thorough attention;
- to provide a means to discuss methods of impact assessment and reach agreement on the most appropriate; and
- to identify those areas which do not require detailed study.

The following sections are intended to provide the Planning Inspectorate and the relevant consultees with the information necessary to come to an opinion on the issues that should

be addressed in the ES. The value of the statutory consultees in inputting to the Scoping Opinion is recognised by the applicant and SLR and both parties would be pleased to discuss any aspect of the proposed scheme with any organisation.

#### **1.4 Assessment Procedures**

The assessments of environmental effects would be undertaken using guidance and professional standards relevant to the individual topic area, and would be separately referenced in the appropriate sections of the ES.

It is anticipated that the EIA will identify a range of potential environmental issues, many of which vary in terms of the length of time they could potentially be experienced and the significance of the effect. The likely key time frames are:

- Short Term: Typically being within the first three years of the development and comprising initial site development and construction works.
- Medium Term: This would extend to cover the remaining operational life of the proposed landfill and treatment facility.
- Long Term: This would extend as far as the period following the restoration of the site.

Identified effects can be temporary or permanent; direct or indirect; and positive or negative. In relation to the different time frames identified above and in particular to the phased development of the proposed infilling, some of the effects would be temporary, for example the creation of temporary screening bunds, operational noise and traffic, whilst others would be permanent, such as the impact on landscape following restoration.

The proposed development would generate both negative effects and positive benefits, either by the virtue of the proposals themselves (e.g. construction and restoration) or as a result of the mitigation measures proposed.

#### **1.5 Planning and Pollution Control**

The operation of a hazardous waste management facility at Perry's Farm would need to operate under an Environmental Permit (EP).

An application for an Environmental Permit will be submitted to the Environment Agency separately and will not form part of the application to the Secretary of State under the Planning Act 2008.

## 2.0 SITE DESCRIPTION AND PLANNING HISTORY

The site is located at Perry's Farm at the eastern end of the Isle of Grain peninsula on the southern bank of the Thames Estuary (National Grid Ref TQ 878 765). Access is gained via Grain Road (B2001) which becomes the A228 several kilometres to the south-west of the site. A substantial proportion of the proposed application site is currently an active sand and gravel working that has been partially backfilled with inert waste.

A plan showing the location of the site is provided as Drawing PF 1. Harvest Cottages, shown on PF 1 and located immediately to the south of the site, have now been demolished.

Perry's Farm is approximately 0.3km west of the village of Grain. To the south is a large industrial area comprising Grain Power Station, a disused oil refinery, gas storage facilities, a container port and a Liquefied Natural Gas (LNG) import facility.

Adjacent to the site is an area of land previously used for hazardous waste disposal in association with the former oil refinery. The land has been restored with grass and shrubs.

The proposed site consists of an active sand and gravel working (largely worked out) and arable farmland. The sand and gravel is underlain by London Clay. The top of the London Clay has been proven at depths of between 1.6 and 2.5m below ground level (bgl) and this formation extends to approximately 60 to 80mbgl.

The planning permission for mineral extraction (Ref: ME/88/1389) was issued in May 1989 and also permits the backfilling with inert and other wastes. An environmental permit is in place for this infilling operation and the existing mineral void has largely been backfilled, although no restoration works have taken place within the proposed site. The existing planning permission and environmental permit would be considered as part of the baseline.

The approved restoration for the site was to agricultural land and adjacent areas to the north have been restored to this afteruse.

Drawing PF 2 presents the land uses on the site and surrounding area, and Drawing PF 3 provides a topographic survey of the proposed site.

### 2.1 Land Designations

The site is not covered by any designations. However, much of the land to the north, east and west of the site, including the Grain Marshes is covered by ecological designations including the following;

- Internationally designated sites:
  - Medway Estuary and Marshes Special Protection Area (SPA) and Ramsar site; and
  - Thames Estuary and Marshes SPA and Ramsar site;
- Nationally designated sites:
  - Medway Estuary and Marshes SSSI; and
  - The South Thames Estuary and Marshes SSSI.
- Locally designated sites:
  - The Grain Pit Local Wildlife Site (LWS).

The location of these ecological designations is provided on Drawing PF5.

## 2.2 National Policy Statement for Hazardous Waste – June 2013

The National Policy Statement<sup>1</sup> (NPS) for Hazardous Waste was designated by parliament in June 2013 and:

- Defines proposals for hazardous waste landfill with capacity of over 100,000 tpa, or a treatment facility with capacity of over 30,000 tpa, as nationally significant infrastructure projects (NSIPs). It suggests that waste planning authorities may consider the NPS as a material consideration in applications that they determine (ie for smaller facilities which are not NSIP scale);
- States that the Secretary of State will regard the need for both soil washing/bioremediation treatment (as well as other treatment facilities such as those for air pollution control residues (APCRs)) and hazardous waste landfill as proven;
- Restates the importance of the waste hierarchy, in which landfill is at the bottom and is only to be used “as a last resort” although “even with optimal use of this hierarchy, there will always be some hazardous waste, such as asbestos or certain residues from other treatment processes, for which disposal will be the only appropriate option”; and
- Specifically identifies the need for further facilities to treat APCR and contaminated soils.

## 2.3 Proposed Development

Peel Environmental is seeking development consent for a hazardous waste treatment facility at Perry's Farm. Currently there are a limited range of hazardous waste treatment facilities in the south east and only one merchant hazardous waste landfill and that is permitted to accept a limited range of asbestos wastes. The hazardous waste that would be managed would arise primarily from markets within London, the south east of England and eastern England. The proposed facility would consist of a hazardous waste landfill excavated into the London Clay that is present beneath the whole site, together with a treatment facility in the form of a soil washing/ bioremediation facility and a facility for the treatment of APCR.

Some of the London Clay excavated from the site would be used to create the lining and capping for the proposed landfill, with the remaining volume exported from site for use in engineering and capping works.

Specifically Peel Environmental intends to submit a full application for development consent for the following;

- i) extraction of remaining sand and gravel to be used either on or off site;
- ii) extraction of limited volumes of deposited inert waste from within landfill footprint;
- iii) extraction of approximately 400,000 m<sup>3</sup> to 600,000 m<sup>3</sup> clay over 15 years (depending upon final design);
- iv) use and storage of clay for screening bunds and landfill cell creation;
- v) export of clay for use off site;
- vi) importation of hazardous wastes to site at approximately 150,000 tonnes per annum;
- vii) construction and operation of a recycling and soil treatment centre and APCR treatment facility with a capacity in excess of 30,000 tonnes per annum

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<sup>1</sup> National Policy Statement for Hazardous Waste: A framework document for planning decisions on nationally significant hazardous waste infrastructure, Defra, June 2013

- viii) disposal of non recyclable/residual hazardous waste by landfill at a rate of up to 120,000 tonnes per annum;
- ix) construction of new access point and access road:
- x) construction of ancillary facilities including surface water management lagoon, offices, laboratory: and
- xi) the phased restoration of the site to a mixture of agriculture and woodland.

An outline layout for the proposed facility is included as Drawing FP 4. The total operational life of the treatment facility is estimated to be 20-30 years.

A range of mitigation measures will be incorporated into the design and operation of the proposed facility. These would include:

#### *Phased Development*

As part of the assessment process, the way in which the proposed development would be phased and restored would be considered in the context of surrounding receptors in order to minimise the interim effects of the proposed development.

#### *Environmental Controls*

As parts of the assessment process, and of the preparation of an application for an Environmental Permit, a set of management control measures would be identified in order to prevent, or minimise to an acceptable level, emissions of odour, particulates or noise or emissions of any polluting matter to ground or surface water or to the neighbouring marine environment.

#### *Restoration Design*

The final restoration design would also be devised as part of the assessment process. The restoration will ensure the development assimilates itself with the surrounding landscape in the long term. The design would consider the appearance of the site, both during the operational and restoration phases, in relation to the character of the surrounding landscape. It is envisaged that the landfill element of the development will be designed largely on the basis of landfill rather than landraise, in order to reduce the height of the final landform. Consideration would also be given to ecological mitigation, for example by introducing a particular habitat type for ecological benefit.



### **3.0 SCOPE OF ENVIRONMENTAL INFORMATION**

#### **3.1 Introduction**

This section describes the potential environmental impacts which could arise through the proposed works at this site. The Environmental Statement (ES) will consider the environmental impacts of both the construction and operation of the proposed development.

It is suggested that the ES should comprise the following assessments;

- Transport and Access
- Noise and Vibration
- Air Quality, Dust and Odour
- Ecology
- Archaeology and Cultural Heritage
- Hydrology/Hydrogeology and Flood Risk
- Landscape and Visual Amenity
- Land Quality
- Soils and Agriculture
- Human Health and combined effects
- Socio Economic Effects
- Planning Policy, Need and Alternatives
- Climate Change
- Cumulative Impacts

The main potential environmental impacts of the development that have been identified to date are set out briefly below.

#### **3.2 Transport and Access**

Access to the site would be via a new, purpose made, access onto the B2001 Grain Road. Traffic from the development would not travel through the village of Grain. Previous pre-application discussions with Medway Council have confirmed that this should be acceptable in highway terms subject to the completion of a road safety audit. The safety audit would extend to the transport of the hazardous wastes to the site in accordance with paragraph 5.13.3 of the NPS for Hazardous Waste.

The B2001 becomes the A228 to the south-west of the site. The Highways Authority has previously noted that whilst the safety on the A228 has been improved recently there are still capacity constraints, especially at Four Elms roundabout where the A228 meets the A289.

##### **3.2.1 Potential Impacts**

The proposal would lead to an increase in HGV and other traffic on the B2001 and A228 which may have an impact on available highway capacity and

##### **3.2.2 Proposed Assessment Methodology**

The assessment would be undertaken in accordance with the guidance set out in section 5.13 of the NPS for Hazardous Waste.

All material would enter or leave the site by road. The site already has planning permission for sand and gravel extraction and the importation of inert waste and therefore this will form part of the baseline against which the proposed development will be assessed.

The immediate site access arrangements will be assessed with regard to the suitability for usage by HGVs, and the agreement of the Highway Authority to the suitability of the access will be sought.

The number of trips generated by the construction and operational phases of the site will be considered separately and will be calculated using a first-principles approach, based on the expected quantity of mineral extraction, waste infilling and vehicle payload. The anticipated effect on the surrounding highway network will then be quantified based on the relevant time periods for each element of the development. Consideration would be given to other permitted or planned developments that would impact on the highway network.

The capacity of the surrounding highway network will be examined with respect to the trip-generation method and time periods identified above, with the greatest potential effects likely to occur during the traditional highway network morning and evening peak hours. The requirement for junction capacity analysis will be clarified with the Highway Authority before any analysis is undertaken, although it is anticipated that the junction capacity assessment is likely to be required at the A228/A289 roundabout junction. Any analysis and subsequent capacity constraints identified will be accompanied by potential mitigation measures for capacity improvement.

Access to the immediate primary road network can only be achieved via Grain Road and the A228. A detailed evaluation of the Personal Injury Accident record and vehicular speed on the A228 and Grain Road will be undertaken to provide an understanding of the adverse safety record that has been highlighted by previous assessments.

Based on the existing pattern of accidents, an evaluation would be undertaken to establish if the calculated development traffic flows would materially worsen any observed abnormal safety risk. Appropriate mitigation measures that would contribute to resolving particular problems would be identified and subsequent consideration given to the geometrical alignment and width of the highway. Detailed drawings will be produced highlighting areas of concern, with associated potential solutions.

### **3.2.3 Reporting**

Based on the findings of the Transport & Access study and any mitigation measures identified, an appropriate strategy for progression of the project will be determined, with negotiations undertaken with the Highway Authority.

In accordance with paragraph 5.13.2 of the NPS for Hazardous Waste, a transport assessment, documenting all of the investigations and findings described above, will be produced. The assessment will assume that the site would operate at the maximum capacities for which permission is being sought.

## **3.3 Noise Assessment**

Parr 5.11.12 of the NPS notes that...*'For those processes in a development whose noise impacts would be subject to an environmental permitting regime, the Secretary of State may assume that the regime will exercise the necessary controls. However, the Secretary of State must take into account the potential impact from all noise sources when deciding whether or not to grant development consent and if so on what terms.'*

The existing noise climate in the vicinity of the proposed development includes industrial sources to the south and road traffic sources on the B2001. There is also a clay extraction site to the north which operates intermittently.

Noise-sensitive locations in the area include Ramsar, SSSI and SPA sites as well as the following residential receptor locations:

- West Lane;
- Grain Road;
- Peat Way;
- Rose Court Farm; and;
- Perry's Farm (and two cottages within the footprint of the farmstead, one of which is occupied).

### **3.3.1 Potential Impacts**

Noise generated by operations at the proposed development has the potential to affect all of the noise-sensitive receptors indicated above and would depend on the phasing, hours of operation, stand-off distances and plant utilisations. The majority of operations that could generate noise on site would be limited to daytime operations only.

Noise generated by changes in road traffic flows on the B2001/A228 may also impact on residential properties.

### **3.3.2 Proposed Assessment Methodology**

SLR has previously agreed noise monitoring locations with Medway Council, and monitoring was undertaken in January 2011. SLR will consult with the local authority to determine whether this monitoring remains valid.

Any new noise surveys would be undertaken over four non-consecutive 15 minute periods during a normal midweek working day at each residential noise-sensitive locations agreed with the local authority and the noise data gathered used to derive noise limits for the proposed operations in accordance with the relevant guidance from BS4142 and the NPPF.

Noise surveys will also be undertaken over a single 1-hour period at the closest boundaries of sensitive habitats.

Noise levels generated by the proposed development would be predicted using the proprietary, software based model, Cadna/A which implements the full range of UK calculation methodologies. In this instance it is assumed that the calculation algorithms used in BS5228 will be used.

Noise levels generated by operations within the extension areas will be predicted in accordance with the guidance contained within BS5228-1:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites. The resulting predictions will be assessed against the guidance contained in the Technical Guidance to the National Planning Policy Framework.

The noise impacts on any noise sensitive wildlife will be assessed against the ambient noise climate within the Ramsar, SSSI and SPA sites.

Where considered appropriate, mitigation measures to reduce any impacts at the noise-sensitive receptors will be suggested which will include, but not be limited to, the use of screening mounds, operational limitations and recommendations for specific plant items.

It is considered that none of the operations at the site, during either its construction or its operation, would give rise to discernible vibration and it is suggested that this should be scoped out of the EIA work. The initial earthworks would utilise standard earthmoving plant

to create the peripheral landform. After this initial stage all operations would be at least 100m from the closest residential property. The landfill operation would use standard landfill equipment, including dumptrucks, excavators and bulldozers, and none of these would generate significant levels of vibration off-site. Similarly the treatment plant would not generate significant levels of vibration either within the site or off-site.

### **3.3.3 Reporting**

In accordance with paragraph 5.11.4 of the NPS for Hazardous Waste, the noise assessment chapter in the ES will provide:

- A description of the noise generating aspects of the development, including the identification of any distinctive tonal, impulsive or low frequency characteristics of the noise;
- Identification of noise sensitive premises and noise sensitive areas (such as nature conservation sites) that may be affected;
- The characteristics of the existing noise environment;
- Predictions of how the noise environment would change with the proposed development, and as a result of any increase in HGV movements:
  - in the shorter term such as during the construction period;
  - in the longer term during the operating life of the infrastructure and during the decommissioning of the infrastructure; and
  - at particular times of the day, evening and night as appropriate; and
- An assessment of the effect of predicted changes in the noise environment on any noise sensitive premises and noise sensitive areas; and
- A description of measures to be employed in mitigating the effects of noise.

## **3.4 Air Quality Assessment**

Medway Council's Local Air Quality Management reports do not identify any significant risk of Air Quality Objectives being exceeded within the vicinity of the site. In 2010 Medway Council declared three new Air Quality Management Areas; however these are all sufficient distance from the site that they are unlikely to be affected by the proposed development.

The proposed waste handling activities at the site would require an Environmental Permit from the Environment Agency. Therefore the operator would be required to demonstrate to the satisfaction of the Agency that all potential pollutant emissions to air could be controlled without posing an unacceptable risk to humans and the environment. The plant would operate within any relevant statutory limits.

### **3.4.1 Potential Effects**

The air quality assessment in the EIA will consider effects associated with:

- Dust – potentially generated in the mineral extraction, landfill engineering and waste deposition, together with the waste treatment activities;
- Landfill gas and odour – whilst volumes would be likely to be insignificant, there may be some potential for generation of landfill gas ; and
- Traffic – traffic exhaust emissions (primarily NO<sub>2</sub> and PM<sub>10</sub>).

### **3.4.2 Receptors for Air Quality Assessment**

Locations within approximately 2km radius at which human receptors could potentially be exposed to significant air pollutants will be considered; worst case and representative locations will be used in the assessment. These include all areas outside the site boundary

for short term exposure and isolated properties and the urban area of Grain for long term exposure.

Ecological receptors within 2km that will require consideration include the Thames Estuary & Marshes and Medway Estuary & Marshes Ramsar sites, SPA and SSSI designations and the South Thames Estuary & Marshes SSSI. These are shown on drawing PF 5.

### **3.4.3 Proposed Methodology**

#### Background Air Quality

Background air quality from published data by Medway Council and National Air Quality Archive will be reviewed to identify the baseline and any air quality issues. This will include review of documents published as part of LAQM responsibilities and available monitoring data.

#### Dust Assessment

A qualitative assessment of potential dust impacts would be undertaken with regard to latest legislation and guidance. The assessment would incorporate the following:

- a review of the site location with respect to residential/commercial/industrial properties and other sensitive receptors including ecological;
- a review of the potential sources on site considering the mineral extraction and deposition of hazardous wastes and any designed in mitigation; and
- the conditions of the surrounding environment.

Using appropriate meteorological data, the potential risk of impact of the development on local receptors will then be assessed qualitatively.

On the basis of the risk assessment and latest legislation and guidance recommendations will be made for the control of emissions from the proposal, where necessary.

#### Traffic Emissions Assessment

The operation of the proposed development would introduce movements of heavy goods vehicles accessing/leaving the site. The movement of vehicles associated with the development have the potential to impact on levels of pollutants; the most significant of which will be nitrogen dioxide (NO<sub>2</sub>) and PM<sub>10</sub>. A screening assessment of impacts from vehicles during the operational phase would be undertaken using the Design Manual for Roads and Bridge screening methodology.

The assessment would be undertaken with reference to the following documents:

- LAQM Technical Guidance (09);
- DMRB<sup>[1]</sup> Volume 11, Section3, Part 1 HA207/07- Air Quality; and
- Development control - planning for air quality – NSCA<sup>[2]</sup>.

In terms of human receptors, long term nitrogen dioxide and PM<sub>10</sub> concentrations would be modelled at the properties on the main routes affected by significant volumes of traffic. Designated ecological receptors within 200m of affected roads would also be considered.

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<sup>[1]</sup> DMRB Volume 11, HA207/07- Air Quality, Highways Agency, 2007

<sup>[2]</sup> Development control - planning for air quality – 2006 Update, NSCA, 2006

### Landfill Gas Assessment

A qualitative assessment would be undertaken on the basis of waste types and volumes proposed. At this stage it is considered unlikely that the site will generate significant volumes of landfill gas. If, on the basis of this initial assessment, further assessment is required then a simple gas generation tool may also be used, e.g. GasSim Lite, to inform the assessment. Assessment of odour associated with landfill gas would use a qualitative approach considering meteorological data and the distance and direction to receptor locations.

A Landfill Gas Risk Assessment would be required for the Environmental Permit and is therefore not proposed to be addressed in detail in the EIA. If volumes of gas were predicted to be significant the assessment would utilise the latest version of the Agency regulatory model GasSim, Version 2.

### Potential Mitigation

Industry standard dust mitigation measures for mineral extraction would be employed at the site.

Landfill control measures will be defined in accordance with Environment Agency technical guidance notes (LFTGN). These include measures to control dust, odours and landfill gas. The site would only be permitted to operate on receipt of an Environmental Permit that will require implementation of all necessary control measures to the satisfaction of the Environment Agency.

#### **3.4.4 Reporting**

In accordance with paragraph 5.2.4 of the hazardous waste NPS, the ES chapter on Air Quality will consider:

- any significant emissions to air, their mitigation and any residual effects distinguishing between construction and operational stages, and taking account of any significant emissions from any traffic generated by the project;
- the contribution of air emissions to critical levels and loads for the protection of vegetation and ecosystems;
- the predicted absolute emission levels from the proposed project, after mitigation methods have been applied; and
- existing air quality levels and the relative change in air quality from existing levels.

The potential for emissions of dust and odour to have a detrimental effect on amenity would be described in accordance with paragraph 5.6.4 of the NPS for Hazardous Waste.

### **3.5 Hydrogeology, Hydrology and Flood Risk Assessment (FRA)**

#### **3.5.1 Background**

##### Geology and Hydrogeology

The application site is underlain by superficial River Terrace and Head Deposits which overlie the London Clay Formation. Under the existing planning permission the superficial sand and gravel deposits have been removed from parts of the site and most of the resultant void backfilled with made ground in the form of inert fill. The top of the London Clay has

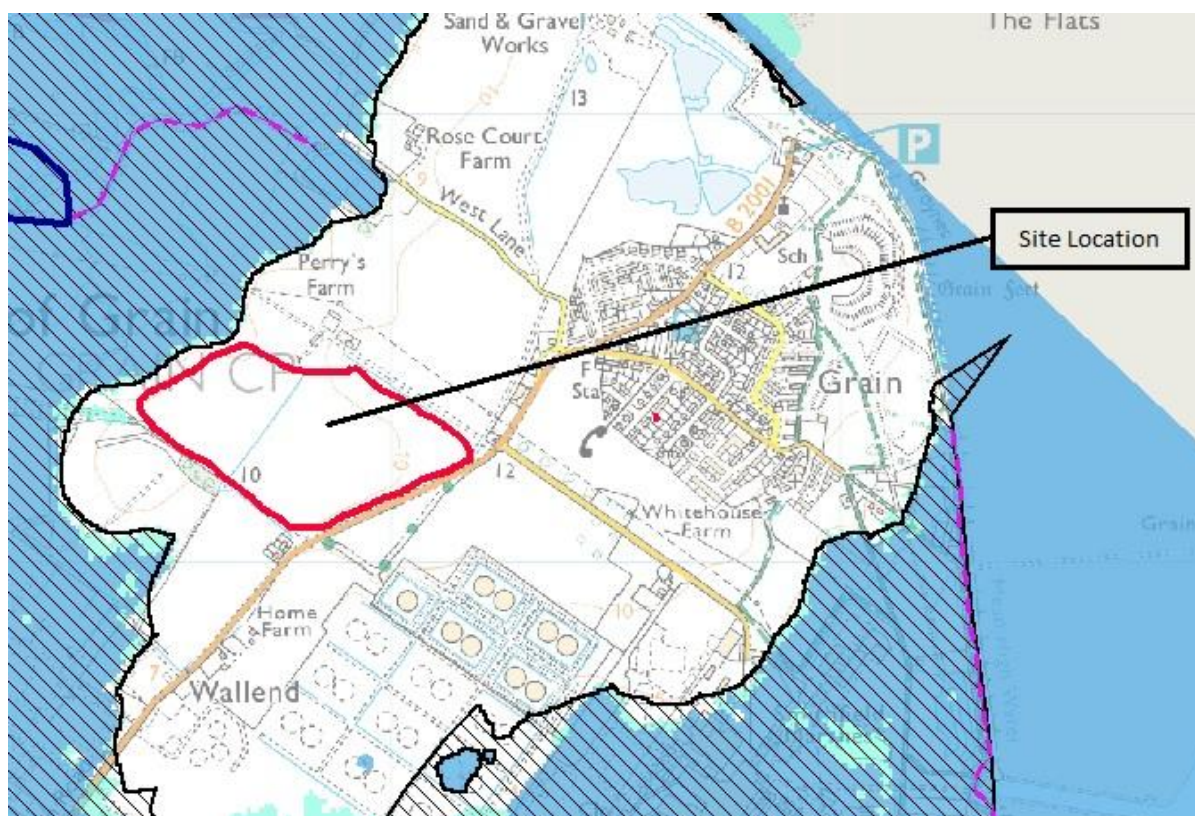
been proven at between 1.6 and 2.5m below ground level (bgl) and this formation extends to approximately 60 to 80mbgl. The superficial deposits are absent west of the application site where the London Clay outcrops.

The superficial deposits (secondary aquifer) possess a relatively high permeability and contain a perched groundwater system overlying the London Clay (non-aquifer). Groundwater in the superficial deposits is likely to flow laterally to the north-west over the surface of the London Clay emerging in surface drains at the outcrop of the London Clay on the western site boundary.

The Environment Agency's website confirms that the application site does not lie in or near a designated Groundwater Source Protection Zone.

### Hydrology and Flood Risk

The application site is located approximately 500m south of the River Thames and an extract of the Agency's flood zone map is presented as Figure 3-1.



**Figure 3-1**  
**Extract of Environment Agency Flood Zone map**  
**(from [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk))**

Review of Figure 3-1 confirms that the application site lies within Flood Zone 1 (low probability of tidal or fluvial flooding) but is surrounded by areas of defended Flood Zone 3 (high probability of tidal or fluvial flooding in the absence of defences). The majority of land within Flood Zone 3 is shown to be protected by existing flood defences; the defences are indicated in pink and the area protected by defences is indicated by the cross-hatching on Figure 1.

While the application site lies within Flood Zone 1, it exceeds 1 hectare in extent and therefore a Flood Risk Assessment is required to support the planning application in accordance with the National Planning Policy Framework and paragraph 5.7.4 of the NPS for Hazardous Waste.

Surface water runoff generally originates in the west of the proposed site where the London Clay outcrops and a network of drainage channels is present. These watercourses generally drain to the west or north-west towards Yantlet Creek which is shown on Drawing PF2.

### **3.5.2 Potential Effects**

In the absence of appropriate site design and mitigation, the proposed development could have the following potential effects on the local hydrogeology and hydrology:

- The extraction of the superficial deposits and creation of an engineered landfill could influence local groundwater levels and flow and any local abstractions. In addition, without appropriate control, groundwater could enter the void;
- The operation and development of the site has the potential to impact groundwater and surface water quality from general site activities such as use of plant, elevated suspended solids in runoff and storage of potentially contaminating materials;
- The landfill development has the potential to impact groundwater and surface water quality through the generation and migration of leachate;
- The creation of a low permeability domed landform following site restoration could increase surface water runoff rates and volumes and hence increase flood risk to others;
- The proposed development could alter current site drainage arrangements, potentially resulting in runoff being routed to different catchments/watercourses; and
- The excavation of made ground could intercept areas of contaminated ground and potentially mobilise pollutants to groundwater or surface water. This issue will be addressed within the Land Quality section of the ES.

### **3.5.3 Proposed Methodology**

The Hydrogeology and Hydrology section of the ES would present the current baseline conditions based on a thorough desk-study review and liaison with third parties including the Environment Agency and Local Authority. Intrusive site investigations have been undertaken to confirm the lateral extent and depth of the London Clay through a series of boreholes and trial pits.

A conceptual hydrogeological model would be developed for the site.

The potential impacts of the proposed development on the groundwater and surface water environments would be assessed and appropriate mitigation measures proposed. The assessment would include a full quantitative Hydrogeological Risk Assessment (HRA) of the performance of the proposed landfill. The HRA would assess the site's performance with respect to compliance with the Groundwater Regulations and would identify appropriate site management measures such as leachate control and engineered liner design.

A Flood Risk Assessment would be undertaken and would form an appendix to the ES chapter. The FRA would assess all potential sources of flooding to the site and the potential



impact of the site on flood risk to others and would take into account the potential effects of climate change.

#### **3.5.4 Potential Mitigation**

The potential mitigation measures with regards to hydrology and hydrogeology are likely to include:

- Appropriate design and management of the landfill development and treatment facility, in accordance with the Environmental Permitting Regulations and regulatory guidance;
- Measures to mitigate against changes to the local surface water runoff regime including development of an outline surface water management plan and the incorporation of sustainable drainage techniques (SuDS) where appropriate;
- Control of groundwater within the superficial deposits, potentially including the use of a cut off drain, to prevent groundwater ingress during site development and/or groundwater drains to facilitate the flow of groundwater around the landfill; and
- Compliance with Pollution Prevention Guidelines (PPGs), a traffic management plan and other best practice guidance.

#### **3.5.5 Reporting**

In accordance with paragraphs 5.15.2 and 5.15.3 of the NPS for Hazardous Waste, the ES chapter on hydrology and hydrogeology will describe:

- the existing quality of waters affected by the proposed project and the impact of the development on water quality, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges;
- existing water resources and water bodies potentially affected by the proposed project and the impacts of the proposed project on water resources and water bodies, with reference to Catchment Abstraction Management Strategies;
- existing physical characteristics of the water environment (including quantity and dynamics of flow) potentially affected by the proposals and any impact of physical modifications to these characteristics; and
- any cumulative effects.

### **3.6 Archaeology/Cultural Heritage**

In order to address the requirements of the EIA, an archaeological desk-based assessment and cultural heritage assessment will be undertaken in accordance with paragraph 5.8.7 of the NPS for Hazardous Waste.

The desk-based assessment will involve a study of the local Historic Environment Record (HER), walkover survey, aerial photographic assessment and historic map regression to establish the baseline conditions for the site.

It has been noted in previous studies of the area that no statutorily designated sites (scheduled monuments, listed buildings etc) lie within the boundary of the site. However, the area surrounding the site contains a number of listed buildings, as well as coastal defences dating from the 19<sup>th</sup> century onwards, several recorded wreck sites and evidence of human occupation and land use from the Iron Age onwards. It will be necessary, through consultation with English Heritage and Kent County Council to identify those sites that could potentially be affected by the proposal, such as by affecting the setting of listed buildings and

scheduled monuments, and to assess the potential for the discovery of previously unrecorded archaeological remains within the site boundary.

The cultural heritage study will involve a study of the wider area, of up to 1.5km around the site, in the case of statutorily protected sites and buildings, identifying key cultural heritage assets and assessing the impact upon them. A more detailed assessment will be undertaken for those assets that could potentially be affected by the proposed development and where necessary, mitigation identified to minimise any impacts.

### **3.6.1 Baseline Assessment**

The first part of the study will consist of data-gathering to produce a baseline survey which will be in accordance with the Institute for Archaeologists Standard and Guidance for Archaeological Desk-based Assessments 2001.

The following elements will be included:

- Consultation with Kent Historic Environment Record for site specific information;
- Consultation with English Heritage on listed buildings and other statutorily protected sites;
- Consultation with the local Conservation Officer to establish and assess Listed Buildings and Conservation Areas;
- Consultation of web-based facilities for other information, including Heritage Gateway, MAGIC and the National Monument Record;
- Map regression using historic mapping sources to identify changes and development of the historic landscape;
- Review of available Historic Landscape Characterisation;
- Data on statutorily protected sites within up to 1.5km of the site boundary
- A review of aerial photographs;
- Synthesis of published sources to establish historic landscape and archaeological context; and
- A walkover survey to study the historic landscape and designated features in the context of their topographic location, and to identify aspects of the historic environment not previously mapped.

The results of the above survey will be manipulated in a GIS and presented in an illustrated textual report. Based on completion of this stage it will be possible to identify the need and extent of any further investigation.

### **3.6.2 Assessment Methodology**

The second part of the study will include an impact assessment to evaluate the physical threat to any known or potential archaeology and the impact on the settings of statutorily and/or non-statutorily protected features. In particular the potential impact on the settings of listed buildings, protected landscapes and scheduled monuments will be considered in conjunction with the landscape and visual impact assessment (LVIA).

GIS manipulation of the data to establish ZTV information will be carried out to short list the potentially significantly affected sites, and then a detailed analysis of potential effects on those sites will be carried out. Analysis will include assessing the importance of the sites, their function, intentionality and design issues and vulnerability to change, with site visits where appropriate or possible within the scope of the assessment.

The Cultural Heritage assessment which will be prepared in accordance with paragraph 5.8.8 of the NPS for Hazardous Waste will include the following illustrations:

- Baseline map showing cultural heritage assets in relation to ZTV data
- Historic Landscape Characterisation data (if available) for the site and adjacent ground;
- Historic map regression for the study area; and
- Site walkover photographs.

A mitigation strategy will be designed to avoid impacts on known archaeological resources. It will also identify any need for further investigation in areas with potential for archaeological remains, either before or during construction.

### **3.7 Ecology and Biodiversity**

#### **3.7.1 Potential Impacts**

The ecological impact assessment will consider:

- Direct and indirect impacts on designated sites;
- Direct impacts on habitats and flora present within the application site;
- Direct impacts on species of fauna that use the application site; and
- Indirect impacts (i.e. arising out of changes to noise, air quality, dust and hydrological baselines) on designated sites, habitats and species.

An initial review of designated sites shows that there are no designated geological conservation sites within, or surrounding the site and it is suggested that the consideration of potential effects on geological conservation should be scoped out of the EIA.

#### **3.7.2 Ecological Impact Assessment**

The ecological impacts from the proposed development at Perry's Farm will be assessed against baseline information gathered through desk-based study and field surveys and an evaluation of the ecological features. Both qualitative and quantitative information will be used to identify likely significant ecological impacts, including the positive, negative, direct, indirect and the cumulative environmental effects.

##### *Desk-based Study*

A desk-based study has been undertaken, and will be brought up to date, involving the collection and collation of information relating to the Perry's Farm site and within a 2km radius of the site, including requests for biological records held by the Kent and Medway Biological Records Centre (K&MBRC).

Standard data will include information on statutory and non-statutory nature conservation sites, records for protected and notable species and other relevant ecological data within a defined 2km search area around the proposed development site. This information will be used in an ecological evaluation of the site.

##### *Field Survey*

A range of ecological surveys have and continue to be conducted at Perry's Farm to inform the Ecological Impact Assessment (EclA). The surveys conducted and those on-going are detailed in Table 3.1.

**Table 3.1: Ecological Field Surveys at Perry's Farm**

Survey	Methodology	Date of Survey (s)
Extended Phase 1 Habitat Survey	Standard methodology based on the <i>Handbook for Phase 1 Habitat Survey – A Technique for Environment Audit</i> (NCC 1990).	2011 and 2013
Bat Activity Survey	Internal inspection of barns and outbuildings only. Dusk emergence and dawn re-entry survey of farmhouse and associated buildings at Perry's Farm. Bat activity surveys (dusk and dawn) of application site.	2011 <sup>(1)</sup>
Water Vole Survey	Standard methodology as detailed in the <i>Water Vole Conservation Handbook</i> (Strachan <i>et al</i> 2011).	2011 and 2013
Breeding Bird Survey	Based on the Common Bird Census Techniques with a minimum of three survey visits undertaken throughout the bird breeding season, (between mid April and mid May; mid May and mid June and mid June and early July).	2011 and 2013
Wintering Bird Survey	Based on standard methodologies as detailed in <i>Bird Monitoring Methods</i> (Gilbert <i>et al.</i> 1998) with monthly visits from October through to March.	2011 and 2013/14 (on-going)
Reptile Survey	Best practice guidance for reptile survey as detailed in <i>Reptile Survey: An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation</i> (Froglife 1999).	2011 <sup>(2)</sup>
Great Crested Newt Survey	Standard best practice guidelines as detail in the <i>Great Crested Newt Mitigation Guidelines</i> (English Nature 2001).	2011 and 2013
Invertebrate Survey	Monthly visits from May to September based on guidelines detailed in <i>Surveying Terrestrial and Freshwater Invertebrates for Conservation Evaluation</i> (Drake <i>et al</i> 2007)	2011 <sup>(3)</sup>

Notes:

- 1 No roosts confirmed at Perry's Farm and very low bat activity recorded in 2011. Baseline conditions at the site or wider surrounding area have not significant altered since this time and therefore it is considered that no further bat surveys are required
- 2 Grass Snake, Common Lizard and Slow Worm recorded on site in 2011 with Grass Snake and Common Lizard observed in 2013. Baseline conditions at the site have not significantly altered since 2011 that is likely to change the results of the original survey and therefore it is considered that no further reptile surveys are required.
- 3 Baseline conditions at the site in respect to invertebrates have not significantly altered since 2011 and it is considered that no further survey is necessary.

Impact Assessment

An Ecological Impact Assessment (EclA) will be undertaken using the Guidelines for Ecological Impact Assessment (IEEM 2006) and having regard to guidance in the Hazardous Waste NPS at paragraphs 5.3.3 and 5.3.4. The EclA will identify and evaluate the ecological value of the existing site and its components along with the surrounding area. The EclA will also consider any ecological benefits from the restoration proposals for the site. The findings and any critical constraints will contribute to the refinement of the proposed site layout and detailed mitigation measures, where appropriate, to prevent, reduce or offset any residual impacts. The EclA will be published as a chapter in the Environmental Statement.

### 3.7.3 Habitat Regulations Assessment

The proposed development site at Perry's Farm is within close proximity to two European sites namely the Thames Estuary and Marshes SPA / Ramsar site and Medway Estuary and Marshes SPA / Ramsar Site. The qualifying interest features for these sites are summarised Table 1.

**Table 1: Relevant European Sites and their Qualifying Interest**

Statutory Designated Sites	Description
Thames Estuary and Marshes SPA	<p>Extensive marshes and intertidal areas covering 4838.94ha. Classified as a SPA in 2000 because it regularly supports populations of European importance of species listed on Annex I of the Birds Directive (79/409/EEC) including over wintering Avocet (<i>Recurvirostra avosetta</i>) and Hen Harrier (<i>Circus cyaneus</i>).</p> <p>It also qualifies because it regularly supports populations of European importance for migratory ringed plover as well as a wetland of international importance by regularly supporting at least 20,000 waterfowl.</p>
Thames Estuary and Marshes Ramsar site	<p>Designated in 2000 the site qualifies under:</p> <ul style="list-style-type: none"> <li>• Criterion 2 because it supports one endangered plant, at least 14 nationally scarce plants of wetland habitats and supports more than 20 British Red data book invertebrates;</li> <li>• Criterion 5 because of its international important assemblage of waterfowl (5 year peak mean winter counts 1998/9-2002/3 of 45,118 individuals); and</li> <li>• Criterion 6 because, based on 5 year peak mean counts 1998/9-2002/2 the site supports: <ul style="list-style-type: none"> <li>○ Peak counts in spring/autumn of 595 individuals, representing an average of 1.8% of GB population, of Ringed Plover (<i>Charadrius hiaticula</i>) and 1640 (4.6%) individuals of Black-tailed Godwit (<i>Limosa limosa islandica</i>);</li> <li>• Peak counts in winter of 1643 individuals, representing an average of 3.1% of GB population of Grey Plover (<i>Pluvialis squatarola</i>), 7279 (1.6%) Red Knot (<i>Calidris canutus islandica</i>), 15171 (1.1%) Dunlin (<i>Calidris alpina alpina</i>), and 1178 (1%) Common Redshank (<i>Tringa tetanus tetanus</i>).</li> </ul> </li> </ul>
Medway Estuary and Marshes SPA	<p>A complex arrangement of tidal channels, which drain around large islands of saltmarsh and peninsulas of grazing marsh covering 4684.36ha.</p> <p>Classified as a SPA in 1993 because it regularly supports</p>

Statutory Designated Sites	Description
	<p>populations of European importance of species listed on Annex I of the Birds Directive (79/409/EEC) including: breeding Avocet and Little Tern (<i>Sterna albifrons</i>); and over wintering Avocet.</p> <p>It also qualifies under Article 4.2 of the Birds Directive as it is regularly supports populations of European importance for migratory species including:</p> <ul style="list-style-type: none"> <li>• on passage:             <ul style="list-style-type: none"> <li>○ Ringed Plover (<i>Charadrius hiaticula</i>), and</li> </ul> </li> <li>• over winter:             <ul style="list-style-type: none"> <li>○ Black-tailed Godwit (<i>Limosa limosa islandica</i>);</li> <li>○ Dark-bellied Brent Goose (<i>Branta bernicla bernicla</i>);</li> <li>○ Dunlin (<i>Calidris alpina alpina</i>);</li> <li>○ Grey Plover (<i>Pluvialis squatarola</i>);</li> <li>○ Pintail (<i>Anas acuta</i>);</li> <li>○ Redshank (<i>Tringa totanus</i>);</li> <li>○ Ringed Plover (<i>Charadrius hiaticula</i>); and</li> <li>○ Shelduck (<i>Tadorna tadorna</i>).</li> </ul> </li> </ul> <p>In addition to the above, the original SPA citation and 1999 updated Natura 2000 Data Form<sup>2</sup> lists: Common Tern (<i>Sterna hirundo</i>) and Bewick's Swan (<i>Cygnus columbianus bewickii</i>) under Article 4.1 qualification; and Shoveler (<i>Anas clypeata</i>), Teal (<i>Anas crecca</i>), Widgeon (<i>Anas penelope</i>), Turnstone (<i>Arenaria interpres</i>), Knot (<i>Calidris canutus</i>), Oystercatcher (<i>Haematopus ostralegus</i>), Curlew (<i>Numenius arquata</i>) and Greenshank (<i>Tringa nebularia</i>) under Article 4.2 qualification. Where there is a mismatch between the species listed in extant citations and listed in the 2001 SPA Review<sup>3</sup>, the Joint Nature Conservation Committee (JNCC) advises that the 2001 SPA Review should be taken as the definitive list of qualifying species.</p> <p>The site also qualifies under Article 4.2 as a wetland of international importance by regularly supporting at least 20,000 waterfowl including: Little Grebe (<i>Tachybaptus ruficollis</i>), Dark-bellied Brent Goose, Shelduck, Pintail, Ringed Plover, Grey Plover, Dunlin, Avocet, Redshank, Curlew, Great Crested Grebe (<i>Podiceps cristatus</i>), Cormorant (<i>Phalacrocorax carbo</i>), Widgeon, Teal, Oystercatcher, Lapwing /9 <i>Vanellus vanellus</i>), Black-tailed Godwit and Whimbrel (<i>Numenius phaeopus</i>).</p>
<p>Medway Estuary and Marshes Ramsar Site</p>	<p>The Medway Estuary and Marshes was designated a Ramsar site in 1993, under the criteria adopted by the Meetings of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran 1971), and qualifies under:</p> <ul style="list-style-type: none"> <li>• Criterion 2 because it supports a number of rare plants and animals, holds several nationally scarce plants and at least 12 British Red data book invertebrates;</li> <li>• Criterion 5 because of its international important</li> </ul>

<sup>2</sup> [www.jncc.gov.uk/pdf/SPA/UK9012031.pdf](http://www.jncc.gov.uk/pdf/SPA/UK9012031.pdf)

<sup>3</sup> Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds). 2001. *The UK SPA network: its scope and content*. JNCC, Peterborough.

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Statutory Designated Sites	Description
	<p data-bbox="735 253 1396 315">assemblage of waterfowl (5 year peak mean winter counts 1998/9-2002/3 of 47,637 individuals); and</p> <ul data-bbox="691 322 1396 701" style="list-style-type: none"><li>• Criterion 6 because, based on 5 year peak mean counts 1998/9-2002/2 the site supports:<ul data-bbox="746 389 1396 701" style="list-style-type: none"><li>○ Peak counts in spring/autumn of 3103 individuals, representing an average of 1.2% of GB population, of Grey Plover and 3709 (1.4%) individuals of Common Redshank;</li><li>○ Peak counts in winter of 2575 individuals, representing an average of 1.6% of GB population of Dark-bellied Brent Goose; 2627 (3.3%) Common Shelduck, 1118 (1.8%) Northern Pintail, 540 (1.6%) Ringed Plover, 3021 (1%), Red Knot, and 8263 (1.4%) Dunlin.</li></ul></li></ul> <p data-bbox="735 707 1396 797">Subsequent to designation other species for possible future consideration under Criterion 6 include Black-tailed Godwit for its peak counts in spring/autumn.</p>

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A Habitat Regulations Assessment screening process would be undertaken in accordance with PINS's Advice Note 10. This would include, as appropriate:

- a detailed description of the development, processes, timings, and method of work proposed as part of the NSIP;
- details of the methodology used to determine which European sites should be included within the assessment;
- a plan and description of the European site(s) and all of the associated interest features potentially affected;
- an appraisal of the project's likely impacts on the European site(s);
- an outline and interpretation of baseline data;
- an appraisal of any other plans or projects likely to have a significant effect in combination with the proposed development;
- an evaluation of the potential for the scheme to require two or more appropriate assessments by different competent authorities;
- a statement which specifies where the site boundaries of the scheme overlap into devolved assemblies or other European member states; and
- evidence (such as copies of correspondence or Statements of Common Ground) of agreement between the applicant and SNCBs on the appraisal, interpretation, and conclusions of the assessment.

This is essentially a risk assessment to decide whether a more detailed assessment is required, and if so, the scope of the issues and features to be addressed. If it cannot be concluded with confidence that there is no likely significant effect, then under the precautionary principle, it is assumed that the issue requires more detailed consideration and a Habitats Regulations Assessment will be provided to the Competent Authority in order for them to undertake an Appropriate Assessment.

### **3.8 Landscape and Visual Impact**

In accordance with paragraph 5.9.2 of the NPS for Hazardous Waste a landscape and visual assessment of the proposed development will be undertaken including construction, operational and post-operational phases.

#### **3.8.1 Landscape Effects**

Perry's Farm on the Isle of Grain in Kent is part of an extensive industrial area consisting of Grain Power Station, a disused oil refinery, gas storage facilities, a container port and a liquefied natural gas (LNG) import facility. The development site itself consists of an active mineral working, landfill, and arable farmland; these factors are likely to have had an effect on the current quality and sensitivity of the landscape of the site.

'Multi-Agency Geographical Information for the Countryside' known as 'MAGIC' (located at <http://www.magic.gov.uk/>) has confirmed that there are no landscape related designations in the vicinity of the site. However, it identifies Special Protection Areas (SPA) and Sites of Special Scientific Interest (SSSI) in close proximity to the site. While these designations principally relate to ecological value they may also represent increased importance for recreational receptors so their status will still be recognised in the assessment.

#### **3.8.2 Visual Effects**

The nature of the surrounding low lying and relatively flat landscape and the fact that the site is close to the coast means that views of the proposed development could be widespread; however, it is likely that the historic use of the site and the surrounding industrial context already has an effect on how the site is perceived and the potential sensitivity of views towards it.

As discussed above the MAGIC search for a 5 km radius around the site shows that most of the designations relate to Ecology or Cultural Heritage, the potential visual impact on these and other potential receptor locations including Country Parks will also be assessed.

Residential areas and public rights of way will be identified via use of Ordnance Survey mapping, these locations will also be considered as being potentially sensitive to the effects of a proposed development. With regards the proposed development the residential area most likely to be affected is Grain, which lies to the east of the site boundary. In terms of public rights of way there are a number of footpaths which follow the coastline to the east and within Allhallows Marshes to the west. The area to the north is defined as a 'Danger Area' by the Ministry of Defence, and therefore appears to have limited accessibility.

#### **3.8.3 Other Associated Effects**

Other effects arising from operations associated with the proposed development will also be considered as part of the assessment as these may also be visible and change how the landscape is perceived, such as the transport of waste and/or minerals by road. The landscape and visual effects of these operations will also be assessed.

The assessment will include the long term landscape and visual effects as a result of the restoration of the site.



### **3.8.4 LVIA Methodology**

#### Introduction

This section provides details on the methodology used for assessing the potential landscape and visual impacts caused by the proposed development.

#### Format

A baseline study will be carried out to divide the landscape down into component parts, and help to understand and identify any elements or receptors that might be particularly sensitive to the proposals. This stage consists of:

- A desktop assessment of potential landscape and visual receptors;
- An examination of the planning context of the proposals;
- A landscape appraisal of the existing site and its surroundings; and
- A visual assessment of the existing site and its surroundings.
- A study of the development proposals is then made to identify potential landscape and visual effects and impact generators within the proposals. This stage includes:
  - Identification of the landscape and visual aspects of the proposals; and
  - Development of mitigation measures to minimise any impacts.
- Following this, an assessment is made of the residual impacts likely to be generated after mitigation has been considered. This stage is divided into the following:
  - Predicted residual landscape impacts;
  - Predicted residual visual impacts;
  - Significance of landscape and visual impacts; and
- Finally a conclusion and summary of the findings will be presented.

#### General Guidance

The landscape and visual impact assessment will follow the principles and recent guidance produced by the Countryside Agency and Scottish Natural Heritage and the Landscape Institute and Institute of Environmental Management and Assessment.

### **3.8.5 Desktop Study**

An initial desktop exercise will be undertaken to identify the extent of the area to be studied and identify potential landscape and visual receptors within the area. This will be established using the 'MAGIC' web site and printed/digital map data. The proposed viewpoints for the assessment are:

- Viewpoint 1- Kingsmead Park
- Viewpoint 2- Allhallows Marshes
- Viewpoint 3- West Lane
- Viewpoint 4- Beach Car park
- Viewpoint 5- Grain Fort Battery Scheduled Monument
- Viewpoint 6- West Lane Properties
- Viewpoint 7- Site entrance off Grain Road
- Viewpoint 8- Grain Road
- Viewpoint 9- Wallend Industrial, Grain Road

In the case of waste and mineral sites no specific guidance exists to define the size and extent of potential study areas. In the case of the proposed development an initial,

assessment has suggested that the study area should extend approximately 1km from the site boundary.

Documents specific to the local area and/or referenced within this section of the environmental statement include the following:

- The Landscape Institute and Institute of Environmental Management and Assessment "Guidelines for Landscape and Visual Impact Assessment" Third Edition, April 2013;
- Countryside Agency ("Landscape Assessment Guidance", 2002); and
- Medway Local Plan (Adopted May 2003)
- The emerging Medway LDF;
- Landscape Character Assessments from the Landscape Character Network web site for local/district assessments ([www.naturalengland.org.uk/lcn](http://www.naturalengland.org.uk/lcn)).

### **3.8.6 Field Observations**

The landscape and visual receptors identified by the desktop review will be further investigated by fieldwork. This will include recording landscape and visual elements through photographs and assessing their potential sensitivity to the proposed development.

Private properties and third party land will not be accessed as part of this assessment. However, if it is considered that this could have prevented the accurate assessment of potential landscape and visual impacts and the identification of appropriate mitigation measures potential impacts will be assessed through the use of the computer model, map data and details of the proposals.

### **3.8.7 Detailed Methodology of Assessment Procedures**

Current landscape assessment practice utilises landscape character assessment as the methodology for analysing and assessing the potential impacts of any development upon the local landscape.

In accordance with paragraph 5.9.2 of the NPS for Hazardous Waste, a review of existing landscape character assessments will be undertaken as these are an important starting point for any new assessment, due to the hierarchical nature of character assessment.

By analysing the character of an area, its principal features and elements can be identified. Once these elements are identified, potential impacts caused by proposed development can be measured, and a judgement made as to the overall effect this may have on the local landscape character.

The landscape components of the site will be assessed using methodology outlined by the Countryside Agency to identify the important local components of the landscape and how they relate to both the regional and district character. An appraisal will then be made of the likely changes to the landscape whether they might be due to slow processes and trends such as agricultural uses, management or vegetation growth, or quicker changes such as planning policy change and permitted developments.

Paragraph 5.9.3 of the NPS for Hazardous Waste suggests that the effects of light pollution should be considered. Given that the site will only be operational during daytime hours and that the site would not be lit at night, it is suggested that consideration of light pollution should be scoped out of the EIA.

### **3.9 Soils and Agriculture**

Approximately half of the proposed site has been the subject of sand and gravel extraction operations with a significant proportion of this area having been subsequently backfilled with inert waste. Some soils from this area have been stockpiled around the perimeter of the site. The remainder of the proposed site consists of agricultural land which has regularly been used for arable crops.

A soil resource assessment will be undertaken across the agricultural land by professional soil scientists, with observations undertaken on a rectilinear grid to give two observations per hectare. All topsoil and subsoil resources will be described and characterised, and areas of any contrasting soils will be delineated in map form. The soil resource information will be combined with other factors relevant to agricultural land classification in order to produce an ALC map. The survey methods and results will be presented in report form with relevant maps included.

In accordance with the requirements of the NPPF, the effects of the development upon any areas of best and most versatile soils will be considered as will the effect on agricultural activity within and around the site. Para 5.10.6 and 5.10.13 of NPS will be fully considered in the assessment.

### **3.10 Land Quality**

Mineral extraction and subsequent backfilling is known to have taken place across part of the application site and on an area of land to the northeast of the site. The area to the north east has now been restored to agricultural use. An Environmental Permit is currently in place for the infilling operations within the site and previously the site held a waste management licence.

Any excavation and treatment of the previously deposited inert waste will be undertaken in accordance with a strict method statement in order to ensure that these activities do not pose a risk to the environment.

It is known that land to the south west of the site was landfilled by BP British Gas between 1952 and 1992 and that other closed landfills exist within the larger industrial area to the south of the site

A desk based review would be undertaken to assess land quality and the potential for contamination on the site or the immediate surrounding area.

The Phase 1 review of information will involve review of the following records or documents, where available:

- Historical maps, as available;
- Historical aerial photographs;
- Previous site assessment and investigation reports;
- Water and air quality data, as available;
- Geological and hydrogeological information for the site and surrounding area;
- Records of nearby releases to surface water, prosecutions etc;
- Records of nearby authorisations to discharge;
- Waste management;
- Proximity to environmentally sensitive areas;
- Proximity to local surface waters;

- Proximity to groundwater resources and to abstraction wells.

UK environmental search records, such as Envirocheck, that collate publicly available information from relevant authorities including licenses, permits, incidents, designations, and site context, would also be reviewed.

The assessment would provide a conceptual site model detailing any potential risks identified with the site. The findings of the assessment would be presented in a chapter of the Environmental Statement.

### **3.11 Socio- Economic Impacts**

The proposed development may result in actual or perceived socioeconomic impacts at a local or regional level. It is proposed that a socio-economic impact assessment is prepared in accordance with the guidance provided in the Hazardous Waste NPS at paragraphs 5.12.1 to 5.12.3.

A section will be included in the Environmental Statement which addresses the potential impacts on the local, regional and national economies including job creation and training opportunities, the potential effects on tourism and the impact on local services. The socio-economic assessment will comprise a review of publically available data only.

### **3.12 Human Health and Combined Effects**

Para 4.10.2 of the NPS for Hazardous Waste states that modern, appropriately located, well-run and well-regulated, waste management facilities operated in line with current pollution control techniques and standards should pose little risk to human health.

Other chapters of the ES will assess the potential impacts upon health from individual elements of the project such as noise, traffic and dust. However, as recognised in the NPS, one or more impacts may affect people at the same time. Therefore the potential for combined effects on health will be considered in this Chapter

The perceptions of the impacts of hazardous waste management facilities on human health frequently give rise to concerns. The reasons for any perceptions of adverse impacts will be assessed together with the evidence regarding the perceived concerns.

Apart from overall health impacts there is also the potential for several impacts identified in different technical assessments to have a potentially unacceptable impact on sensitive receptors. A brief section would be prepared considering the potential combined effects of all the identified impacts.

### **3.13 Planning Policy, Need and Alternatives**

The ES will contain a review of relevant planning policy, including European, National, and Local Planning Policy. Key documents will include:

- The National Policy Statement on Hazardous Waste
- The National Planning Policy Framework
- Kent Waste Local Plan 1998 (saved policies)
- The emerging Kent Minerals and Waste Plan;
- Medway Local Plan 2003
- The emerging Medway Core Strategy

The National Policy Statement on Hazardous Waste makes it clear that the Secretary of State will assess applications for infrastructure covered by the NPS on the basis that need has been demonstrated. This includes bioremediation/ soil washing and hazardous waste landfill proposed by this development.

Notwithstanding this statement a brief assessment of need for the proposed facilities would be presented based on the NPS and information on waste arisings and treatment at a national and regional level.

As required by the National Policy Statement on Hazardous Waste the Environmental Statement will include an outline of the main alternatives studied by the applicant and an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects.

### **3.14 Climate Change**

Section 4.6 of the National Policy Statement for Hazardous Waste requires applicants to take the effects of climate change into account when developing infrastructure. The Policy recognises that the UK is likely to experience hotter, drier summers and warmer, wetter winters. There is an increased risk of flooding, drought, heatwaves, intense rainfall events and other extreme events such as storms, wildfires as well as rising sea levels.

As required by the NPS the ES will set out how the proposal will take account of the projected impacts of climate change. The climate change adaption measures will take account of the latest set of UK climate projections together with relevant research where appropriate.

In the event that any critical features of the proposal may be seriously affected by climate change the assessment will consider more radical changes to the climate beyond that set out in the latest set of UK climate projections. This would take account of the latest credible scientific evidence on, for example, sea level rise (e.g. by referring to additional maximum credible scenarios from the Intergovernmental Panel on Climate Change, EA or others.)

### **3.15 Cumulative Impacts**

The cumulative impacts assessment will consider the development in the context of other existing and planned developments in the vicinity of the site, including the National Grid LNG storage facility and the Grain CHP gas plant.

The assessment would consider the cumulative impact of the proposal together with existing and planned developments particularly in respect of air pollution, transport, ecology, and landscape and visual impact. These impacts would be reported within the specialist technical chapters, but would also be considered collectively in this section.

#### **4.0 INDICATIVE PROGRAMME**

The following programme is designed to give an indication of the timescales for the application and the development. The programme will be kept under review throughout the application process.

January 2014	Receipt of Scoping Opinion
Feb – March 2014	Formal Public Consultation, in accordance with Statement of Community Consultation
October 2014	Submission of Development Consent Application
November 2014	Acceptance of Application
Early 2015	Receipt of Development Consent
Late 2015	Commencement of work on site
2016 - 2046	Likely Maximum Operational Life of Facility

#### **5.0 SUMMARY AND CONCLUSION**

Peel Environmental Ltd is seeking a Development Consent Order for the development of a hazardous waste management facility, including a hazardous waste landfill, at Perry's Farm on the Isle of Grain.

This Scoping Report has been prepared to provide relevant bodies with the key environmental issues that are anticipated to be associated with the proposal, to enable the scope of the EIA to be finalised.

Although the formation of a Scoping Opinion is a statutory process, both Peel Environmental and SLR value the input of the statutory consultees and stakeholders and will be pleased to discuss any aspect of the proposed scheme with any organisation or individual. Please Contact Keith Owen – Technical Director, SLR Consulting Limited at:

SLR Consulting Limited, Aspect House, Aspect Business Park, Bennerley Road, Nottingham NG6 8WR

Tel: 0115 964 7280

Mob 07899 928490

Email: [kowen@slrconsulting.com](mailto:kowen@slrconsulting.com)



Please ask for: Mary Smith  
Our Ref: MC/10/1547  
Date: 29 April, 2010

- 4 MAY 2010



Ms Freyther  
SLR Consulting Limited  
Treenwood House  
Rowden Lane  
Bradford-on-Avon  
Wiltshire  
BA15 2AU

Development, Economy and Transport  
Regeneration, Community and Culture  
Gun Wharf  
Dock Road  
Chatham  
Kent ME4 4TR  
Telephone: 01634 331700  
Facsimile: 01634 331195  
Minicom: 01634 331300

Dear Ms Freyther

**APPLICATION NUMBER: MC/10/1547**

**PROPOSAL: Town and Country Planning (Environmental Assessment) Regulations 1999 - request for a scoping opinion for the extraction of approx 1,500,000m<sup>3</sup> clay at a rate of up to 500,000m<sup>3</sup> per annum for engineering purposes i.e. construction of internal and external landfill cell walls and capping at Perry Farm and other local sites i.e. Rushenden Dredgings disposal area and Hoo Island; importation of hazardous wastes by road and water (circa up to 250,000tpa) ; Extraction of the remaining sand and gravel and export of these by road or water; Creation of restored landfill with a maximum height of 15m AOD post settlement; Off site disposal and sale of London clay; and restoration to nature conservation**

**LOCATION: PERRY'S FARM ISLE OF GRAIN ROCHESTER KENT**

Thank you for your submission which was received on 22 April, 2010. The Council will seek comments from the relevant statutory bodies as to the content of the scoping document. Normally a decision will be made in respect of the adoption of the scoping opinion within 5 weeks, unless a longer period has in the meantime, been agreed with you in writing.

If you wish to enquire about the progress of this submission please visit our website <http://planning.medway.gov.uk/dcwebpages/acolnetcgi.exe>

All documents and plans relating to this submission will be published on the above website. You can also phone the Planning Customer Contact Team on 01634 331700 at least 3 weeks after the date of this letter.

If you have not received notification as to the screening opinion by 27 May, 2010 (or any longer period agreed in writing with you) you can apply to the First Secretary of State for a screening direction.

I hope this advice is useful but if you have any further questions, you can contact me on the above telephone number or via e-mail.

Yours sincerely

**This letter is available in larger print size if required. For details please contact Lisa Maryott on 01634 331102**



PP



Mary Smith  
Planning Officer

28 MAY 2010

## **Decision Notice**

MC/10/1547

ORIGINAL



Ms Freyther  
SLR Consulting Limited  
Treenwood House  
Rowden Lane  
Bradford-on-Avon  
Wiltshire  
BA15 2AU

Development, Economy and Transport  
Regeneration, Community and Culture  
Gun Wharf  
Dock Road  
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Telephone: 01634 331700  
Facsimile: 01634 331195  
Minicom: 01634 331300

### **TOWN & COUNTRY PLANNING ACT 1990**

### **Town & Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999**

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Proposal: Town and Country Planning (Environmental Assessment) Regulations 1999 - request for a scoping opinion for the extraction of approx 1,500,000m<sup>3</sup> clay at a rate of up to 500,000m<sup>3</sup> per annum for engineering purposes i.e. construction of internal and external landfill cell walls and capping at Perry Farm and other local sites i.e. Rushenden Dredgings disposal area and Hoo Island; importation of hazardous wastes by road and water (circa up to 250,000tpa) ; Extraction of the remaining sand and gravel and export of these by road or water; Creation of restored landfill with a maximum height of 15m AOD post settlement; Off site disposal and sale of London clay; and restoration to nature conservation

Location: PERRYS FARM, GRAIN ROAD, ISLE OF GRAIN, ROCHESTER, ME3 0AW

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Take Notice that the Medway Council in pursuance of its powers under the above Act HAS ADOPTED THE FOLLOWING SCOPING OPINION for the development as described above in accordance with your request dated 22 April, 2010.

The ENVIRONMENTAL IMPACT ASSESSMENT should contain the following:

- 1 In addition to the information required by the Town and Country Planning (Environmental Impact Assessment) Regulations 1999 (as amended) as identified in the Request for a Scoping Opinion report received 22 April 2010 the ENVIRONMENTAL IMPACT ASSESSMENT should pay regard to the following:

An assessment of the issues identified by Natural England in its letter dated 17 May 2010 (appended to this decision notice).

An assessment of the issues identified by the Environment Agency in its letter dated 20 May 2010 (appended to this decision notice).

An assessment of the matters raised by Kent County Council Archaeology in their letter dated 21 May 2010 (appended to this decision notice).

The matters raised by the RSPB in their letter dated 20 May 2010 (appended to this decision notice).

The matters raised by a Council Landscape Officer in the Memorandum dated 25 May 2010 (appended to this decision notice).

The need to ensure that the submissions adequately address matters of sustainability, including with regard to any building works on the site and the carbon impact of the transportation of waste to the site.

The Policy Review in the scoping submission refers to the Medway Core Strategy July 2009 but this does not exist.

**Your attention is drawn to the following informative(s):-**

The applicant/agent is advised to contact the Infrastructure Planning Commission (IPC), Temple Quay House, Temple Quay, Bristol BS1 6PN, telephone 0303 444 5000, email: [ipcenquiries@infrastructure.gsi.gov.uk](mailto:ipcenquiries@infrastructure.gsi.gov.uk) in order to discuss whether or not a future planning application for works of the nature described in the current application would need to be submitted to the IPC rather than to Medway Council as Local Planning Authority.

This decision relates to the request for a scoping opinion received 22 April 2010.

Signed

A black rectangular redaction box covering the signature of David Harris.

David Harris  
Development Manager  
Date Of Notice 26 May, 2010



Ms Mary Smith  
Development, Economy and Transport  
Regeneration, Community and Culture  
Medway Council  
Gun Wharf  
Dock Road  
Chatham  
Kent  
ME4 4TR

**Environment and Waste**  
Invicta House  
County Hall  
Maidstone  
Kent, ME14 1XX  
Tel: (01622) 221539  
Fax: (01622) 221636  
Web site: [www.kent.gov.uk](http://www.kent.gov.uk)

Email: [ben.found@kent.gov.uk](mailto:ben.found@kent.gov.uk)  
Ask for: Mr Ben Found  
Your Ref: MC/10/1547  
Our Ref: MC 10 1547 LE01  
Date: 21 May 2010

Dear Ms Smith

**Re: MC/10/1547**

**Town and Country Planning (Environmental Assessment) Regulations 1999 – request for a scoping opinion for the extraction of approx 1,500,000 m<sup>3</sup> clay at a rate of up to 500,000 m<sup>3</sup> per annum for engineering purposes i.e. construction of internal and external landfill cell walls and capping at Perry Farm and other local sites 9.e. Rushenden Dredgings disposal area and Hoo Island; importation of hazardous wastes by road and water (circa 250,000 tpa); Extraction of the remaining sand and gravel and export of these by road or water; Creation of restored landfill with a maximum height of 15 m aOD post settlement; Off site disposal and sale of London Clay; and restoration to nature conservation.**

Thank you for your letter consulting us on the above scoping opinion request. The site in question lies in an area of significant archaeological interest and I welcome the opportunity to comment on the proposals.

#### *Archaeological Background*

I note from the site description that parts of the Perry's Farm site have been subject to past sand and gravel extraction workings. It is likely that extraction of the gravels in these areas will have removed any archaeological remains. However it would appear that sand and gravel extraction has only affected parts of the site and that in-situ gravel deposits remain present in some areas. It is vital that the archaeological desk-based assessment provides a detailed model of these past impacts, highlighting areas where sand and gravel has been completely removed, partially removed or remains intact.

I suggest that the site has the potential to contain buried archaeological remains from the prehistoric to post-medieval periods. In particular areas of the site which have not been affected by past sand and gravel extraction have a very high potential to contain important remains of the Iron Age and Romano-British periods. During archaeological investigations ahead of sand and gravel extraction works around Rose Court Farm an extensive Iron Age and Romano-British site was partially recorded. This site is described by the excavators as being '*one of the most important sites of this period [the Iron Age] in Kent*'. Unfortunately the results of the Rose Court Farm investigations have never been fully published. It is very likely that a continuation of the Iron Age and Romano-British remains identified at Rose Court Farm just to the north-east will survive on any intact areas of sand and gravel within the present site.

In addition the gravels themselves are of palaeo-environmental and geoarchaeological interest and Palaeolithic material has previously been recorded from the gravels in the area.



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*Recommendations*

Past Sand and Gravel extraction will have had an impact on the survival of archaeological remains. One of the key aims of the archaeological study therefore should be to characterise and identify these past impacts and provide robust modelling of what archaeological deposits might survive at the site and where. The study will therefore need to draw upon the results of past geotechnical investigations at the site, records of the sand and gravel extraction works and include a comprehensive walkover survey. If any geotechnical site investigations are planned for the site it would be useful if these could be monitored and assessed by an archaeologist and geoarchaeologist to assist in the construction of an accurate deposit model.

The EIA Scoping Opinion states that a desk-based assessment and walkover survey will be undertaken as part of the EIA process and I welcome this. The applicant needs to ensure that the desk-based assessment is thorough and robust and needs to include a detailed assessment of the impact of the scheme on geo-archaeological and palaeo-environmental remains, above and below ground archaeology, historic buildings and historic landscape features. In particular the desk-based assessment needs to consider the results of the archaeological investigations at Rose Court Farm. The screening report details a range of sources which will be consulted as part of the desk-based assessment process, the applicant should also consider the results of the ongoing English Heritage project reviewing the historic values of the Hoo Peninsula.

Given the archaeological potential of the site it is likely that further archaeological work will be required to mitigate the impacts of the proposed development. The scope of such a programme will be informed by the desk-based assessment and ground modelling. I would welcome the opportunity to review a draft of the desk based study prior to completion and to discuss the scope of any mitigation proposals with the applicant's archaeological consultant.

I hope the above is helpful and would be pleased to discuss any of the issues further.

Yours sincerely

Ben Found  
Archaeological Officer



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INVESTORS IN PEOPLE

Date: 17 May 2010  
Our ref: SEG/06/02/010  
Your ref: MC/10/1547



International House  
Dover Place  
Ashford  
Kent  
TN23 1HU

Mary Smith  
Development, Economy and Transport  
Regeneration, Community and Culture  
Medway Council  
Civic Headquarters  
Gun Wharf  
Dock Road  
Chatham  
Kent  
ME4 4TR

By email only, no hard copy to follow

Dear Ms Smith

**Environmental Impact Assessment Scoping Report for the extraction of clay for engineering purposes ; Importation of hazardous waste by road and water; Extraction of the remaining sand and gravel export of these by road or water; Creation of restored landfill; Offsite disposal and sale of London clay; and restoration to nature conservation**

Thank you for your letter of 29 April 2010 regarding the above. Case law<sup>1</sup> and guidance from the Office of the Deputy Prime Minister<sup>2</sup> has stressed the need for a full set of environmental information to be available for consideration prior to a decision being taken on whether or not to grant planning permission. Natural England therefore advises that the Environmental Impact Assessment (EIA) should give full consideration to:

**1. Sites of Special Scientific Interest (SSSIs) and sites of European or International Importance (Special Areas of Conservation, Special Protection Areas and Ramsar sites).**

The development site is close to the following designated nature conservation sites:

- Thames Estuary and Marshes Wetland of International Importance under the Ramsar Convention (Ramsar site)
- Thames Estuary and Marshes Special Protection Area (SPA)
- South Thames Estuary and Marshes Site of Special Scientific Interest (SSSI)

Further information on these sites can be found at [www.natureonthemap.org.uk](http://www.natureonthemap.org.uk) or by request from this office. The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within these sites and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects.

European sites (e.g. designated SPAs) fall within the scope of the Conservation of Habitats and Species Regulations 2010. Government policy, stated in PPS9 and Ramsar Sites in England: A Policy Statement (DETR 2000)<sup>3</sup>, stipulates that Ramsar Sites be treated as if they are fully designated European sites for the purpose of considering development proposals that may affect them.

<sup>1</sup> Hamison, J In R. v. Cornwall County Council ex parte Hardy (2001)

<sup>2</sup> Note on Environmental Impact Assessment Directive for Local Planning Authorities (April 2004)

<sup>3</sup> [http://www.ramsar.org/wurcwurc\\_policy\\_uk\\_england.htm](http://www.ramsar.org/wurcwurc_policy_uk_england.htm)

Under Regulation 61 of the Conservation of Habitats and Species Regulations 2010 an appropriate assessment needs to be undertaken in respect of any plan or project which is (a) likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and (b) not directly connected with or necessary to the management of the site.

**2. Landscape Character and Designated Areas**

To ensure that the proposed scheme does not adversely affect the character of the surrounding countryside, we recommend that consideration should be given to the following aspects in the environmental impact assessment:

- The potential impact of the scheme on the landscape character and visual amenity of the surrounding area.
- The detailed design of the proposed improvements should seek to respect and enhance local character and distinctiveness, and use appropriate materials and designs in all new built features.

**Landscape and visual impacts**

Natural England would wish to see details regarding local landscape character areas mapped at a scale appropriate to the development site and any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects on the development, such as changes in topography.

The EIA should include a full assessment of the potential impacts of the development on local landscape character using landscape assessment methodologies. We strongly advocate the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2002. LCA provides a sound basis for guiding, informing and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character, as detailed proposals are developed. Guidance on LCA, published by the Countryside Agency and Scottish Natural Heritage, is available at:

[http://www.countryside.gov.uk/LAR/Landscape/CC/landscape\\_character\\_assesment.asp](http://www.countryside.gov.uk/LAR/Landscape/CC/landscape_character_assesment.asp)

In order to foster high quality development that respects, maintains, or enhances, local landscape character and distinctiveness, Natural England would encourage all new development to consider the character and distinctiveness of the area, with the design and outlay of all elements of a proposed development reflecting local design characteristics and wherever possible using local materials. The Environment Impact Assessment process should detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.

**3. Access and Recreation**

Natural England would encourage any proposal to incorporate measures to help encourage people to access the countryside for quiet enjoyment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways are to be encouraged. Links to other green networks or urban fringe areas should also be explored to help promote the creation of a wider green infrastructure. To this end, relevant green infrastructure strategies put in place by local authorities should be incorporated where appropriate.

**4. Local Wildlife Sites**

Our records indicate that the development site is within/adjacent to the following Local Wildlife Site: Grain Pit

Local Wildlife Sites are identified by the local wildlife trust and are of county importance for wildlife. The Environmental Statement should therefore include an assessment of the likely impacts on the wildlife interests of the site[s] identified above. The assessment should include proposals for mitigation of any impacts and if appropriate, compensation measures. Contact the local wildlife trust for further information.

**5. Species protected by the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2010**

We strongly recommend that surveys for protected species (including, for example, great crested newts, reptiles, water voles, badgers and bats) should be carried out within the area affected by the development.

If any protected species are found the Environmental Statement should include details of:

- The species concerned;
- The population level at the site affected by the proposal;
- The direct and indirect effects of the development upon that species;
- Full details of any mitigation or compensation that might be required;
- Whether the impact is acceptable and/or licensable.

In order to provide this information there may be a requirement for a survey at a particular time of year. Surveys should always be carried out by suitably qualified and where necessary, licensed, consultants.

The great crested newt, dormouse and all species of bats are European protected species such that it is illegal to intentionally kill, injure or otherwise disturb them. If any of these species are found to be present you should also consult Natural England's Wildlife Management and Licensing Unit in Bristol (Tel. 0845 6014523) about licensing implications before any work can proceed.

**6. Other features of nature conservation interest, e.g. habitats and species identified within the UK and County Biodiversity Action Plans.**

Natural England advises that a habitat survey (analogous to Phase 2) is carried out on the site, in order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys);
- Additional surveys carried out as part of this proposal;
- The habitats and species present;
- The status of these habitats and species (e.g. whether BAP priority habitat);
- The direct and indirect effects of the development upon those habitats and species;
- Full details of any mitigation or compensation that might be required.

The development should avoid adversely impacting the most important wildlife areas within the site, and should if possible provide opportunities for overall wildlife gain.

**7. Cumulative and in-combination effects.**

The EIA should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. To carry out the assessment of cumulative and in-combination effects, the following types of projects should be included. (Subject to the availability of information):

- a. Existing completed projects
- b. Approved but uncompleted projects
- c. Ongoing activities
- d. Plans or projects for which an application has been made and which are under consideration by the consenting authorities
- e. Plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

I trust these comments are helpful but please do not hesitate to contact me if you require any other information.

Yours sincerely



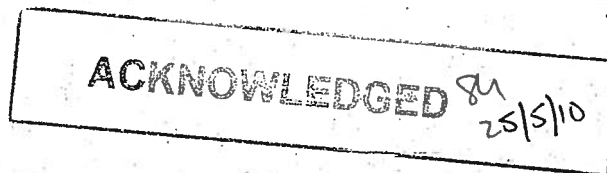
Environmental Planning Adviser  
0300 060 4768  
giulietta.holly@naturalengland.org.uk

creating a better place



Ms Mary Smith  
Medway Council  
Planning  
Gun Wharf Dock Road  
Chatham  
Kent  
ME4 4TR

**Our ref:** KT/2010/110991/01-L01  
**Your ref:** MC/10/1547  
**Date:** 20 May 2010



Dear Ms Smith

**TOWN AND COUNTRY PLANNING (ENVIRONMENTAL ASSESSMENT)  
REGULATIONS 1999 - REQUEST FOR A SCOPING OPINION**

**PERRY'S FARM ISLE OF GRAIN ROCHESTER KENT.**

Thank you for your letter requesting our Scoping Opinion. We would like to offer the following advice:

**Flood Risk**

The scoping report proposes that a flood risk assessment would be undertaken in accordance with PPS25 and we are satisfied that this will enable us to comment on the acceptability of the proposal with regard to flood risk.

**Biodiversity**

The Environment Agency is particularly interested in all wetland habitats and species. Up-to-date habitat surveys should identify all wet habitats on and around the site, including less obvious wet grassland, marshy and boggy areas, as well as ponds/ditches. We would expect to see justification and at least like-for-like compensation for any wetland habitat/feature loss (and terrestrial habitat for wetland species e.g. Great crested newt).

An Environmental Impact Assessment should include:

- the likely impacts (construction and operational) on water and wetland habitats on site and within the surrounding area, including potential impacts on the existing hydrology.
- detailed, up-to-date ecological surveys (habitats and species) of the development site, undertaken at an appropriate time of year by a suitably qualified ecologist.

Environment Agency  
Orchard House (Endeavour Park) London Road, Addington, West Malling, ME19 5SH.  
Customer services line: 08708 506 506  
Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)  
Cont/d..



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- proposed enhancements of existing habitats and habitat creation, particularly in line with local and UK BAPs.
- provision for retaining green corridors and networks within the site and from the site to surrounding existing habitats.
- future site management of retained and created habitats, for the benefit of wildlife.

It is recommended that existing nature conservation features, within the development site, such as mature trees, hedgerows, watercourses and other features be incorporated into site design and protected from change. The Environmental Statement should highlight potential ecological enhancements above and beyond standard protection and mitigation measures for all impacts identified. In a development of this scale ecological enhancements should be an intrinsic part of the plans.

This is in keeping with PPS1 'Delivering sustainable development', PPS9 'Biodiversity and Geological Conservation' and the South East Plan. Policy NRM4 of the South East Plan seeks to avoid a net loss of biodiversity and to actively pursue opportunities to achieve a net gain of biodiversity across the region. PPS9 states how planning decisions should maintain, enhance, restore, and add to biodiversity interests, and recognises that development proposals provide opportunities for including beneficial biodiversity features as part of good design.

#### **Waste**

This development will require an Environmental Permit under the Environmental Permitting Regulations 2007 from the Environment Agency, unless an exemption applies. The applicant is advised to contact Harbinder Marok on 01732 223 284 to discuss the issues likely to be raised.

If you have any further question please do not hesitate to contact me.

Yours sincerely

**Mr Pieter De Villiers**  
**Planning Liaison Officer**

Direct dial 01732 223246

Direct fax 01732 223289

Direct e-mail [pieter.devilliers@environment-agency.gov.uk](mailto:pieter.devilliers@environment-agency.gov.uk)



nature's voice

M Smith  
Medway Council  
Gun Wharf  
Dock Road  
Chatham  
Kent  
NE4 4TR

20 May 2010

Dear Mary,

**Application number:** MC/10/1547

**Proposal:** EIA scoping opinion for works including clay, sand and gravel extraction, importation of hazardous wastes and restoration of site to nature conservation.

**Location:** Perry Farm, Isle of Grain

---

Thank you for consulting the RSPB on the above application. We have reviewed the scoping report and have the following comments to make.

Habitats Regulations Assessment

The RSPB considers that the proposal is likely to have a significant effect on the Thames Estuary and Marshes SPA/Ramsar and the Medway Estuary and Marshes SPA/Ramsar (the designated sites) and that consequently an Appropriate Assessment is required under the Habitats Regulations<sup>1</sup>. Information to inform the AA should be provided in the Environmental Statement and we would welcome the opportunity to provide advice on this aspect of the Environmental Impact Assessment (EIA).

Scope of assessment

Section 3.2 of the scoping document acknowledges that the designated sites are sensitive locations to be considered in the noise assessment. It goes on to state that the scope of the noise assessment will be finalised following consultation with the local authority. Given the potential impacts on the birds for which the sites are designated, we would welcome the opportunity to provide advice on the scope of this assessment to help ensure it is sufficiently robust to inform the AA.

---

<sup>1</sup> The Conservation of Habitats and Species Regulations 2010 (the Habitat Regulations)

South East England  
Regional Office  
2nd Floor, Frederick House  
42 Frederick Place  
Brighton  
East Sussex BN1 4EA

Email [fay.bourri@rspb.org.uk](mailto:fay.bourri@rspb.org.uk)  
Tel 01273 775333  
Tel 01273 763606  
Fax 01767 685535

[www.rspb.org.uk](http://www.rspb.org.uk)



Section 3.6 states that the direct and indirect ecological impacts of the proposal on designated sites will be assessed in the EIA. However, in addition to direct and indirect effects, the assessment should also include the in-combination effects of the proposal with other plans and projects

Hazardous waste

The application includes the disposal of hazardous waste. We wish to express concern and question the appropriateness of storing hazardous waste in close proximity to designated sites. Given the risk of contamination, we would wish to see a sufficient level of assessment/modelling to demonstrate that the associated risks would be acceptable.

Beneficial use of material

We advocate the beneficial use of excavated/dredged material as a primary option and are disappointed to note that the scoping report does not propose to investigate this. The RSPB has considerable expertise in the beneficial use of material for nature conservation and we would welcome the opportunity to discuss this further. The contact for discussions regarding this is Alan Johnson who can be contacted on 01634 222480 or alan.johnson@rspb.org.uk.

I hope these comments are useful, I would be grateful if you could keep me informed of progress with this application.

Yours sincerely

A black rectangular redaction box covering the signature of Fay Bouri.

Fay Bouri  
Conservation officer

**smith, mary**

---

**From:** doyle, brendan  
**Sent:** 25 May 2010 11:02  
**To:** smith, mary  
**Subject:** Perry's Farm, Isle of Grain / Hoo Island, Medway Estuary – Reg 10: Requests for Scoping Opinion  
**Attachments:** header.htm

## MEMORANDUM

**TO: Mary Smith** **YOUR REF: MC/10/1547 & MC/10/1538**

**CC:**

**FROM: Brendan Doyle** **OUR REF: MC/10/1547/BD/01**

**EXT: 2168** **DATE: 25<sup>th</sup> May 2010**

**SUBJECT: Perry's Farm, Isle of Grain / Hoo Island, Medway Estuary – Reg 10: Requests for Scoping Opinion**

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Mary

I have read both of these documents and can offer the following comments:

### Perry's Farm

p.19 – 3<sup>rd</sup> bullet point – final sentence refers to but does not identify relevant character assessments

p.19 – penultimate paragraph at foot of page – 'at this stage a decision was made as to necessity of a local LCA'. What decision was made on this issue?

p.20 – Restoration Design – mentions long term assimilation of development with surrounding landscape. I would prefer to see wording that reflects the need within the restoration design proposals to respect the character of the surrounding landscape (which in this case is marshland).

### Hoo Island

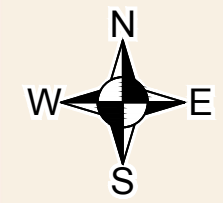
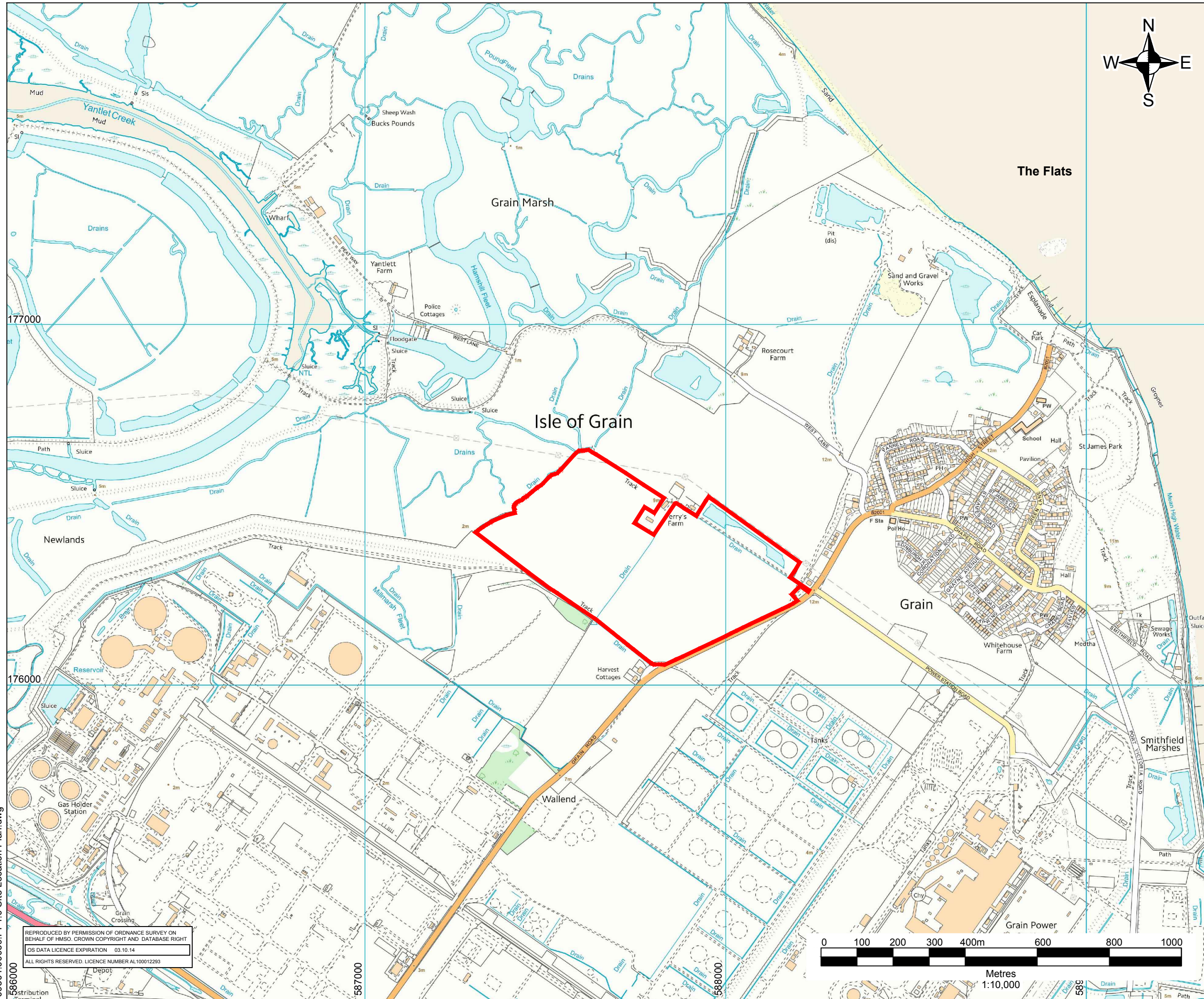
The same points raised above apply also to this document, which adopts the same terminology and wording.

Regards

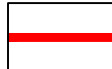
Brendan

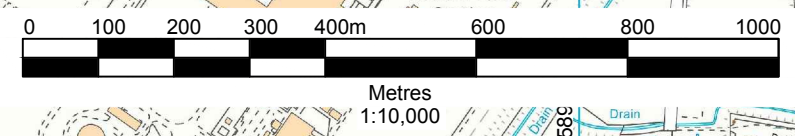
25/05/2010





**LEGEND**

 SITE BOUNDARY



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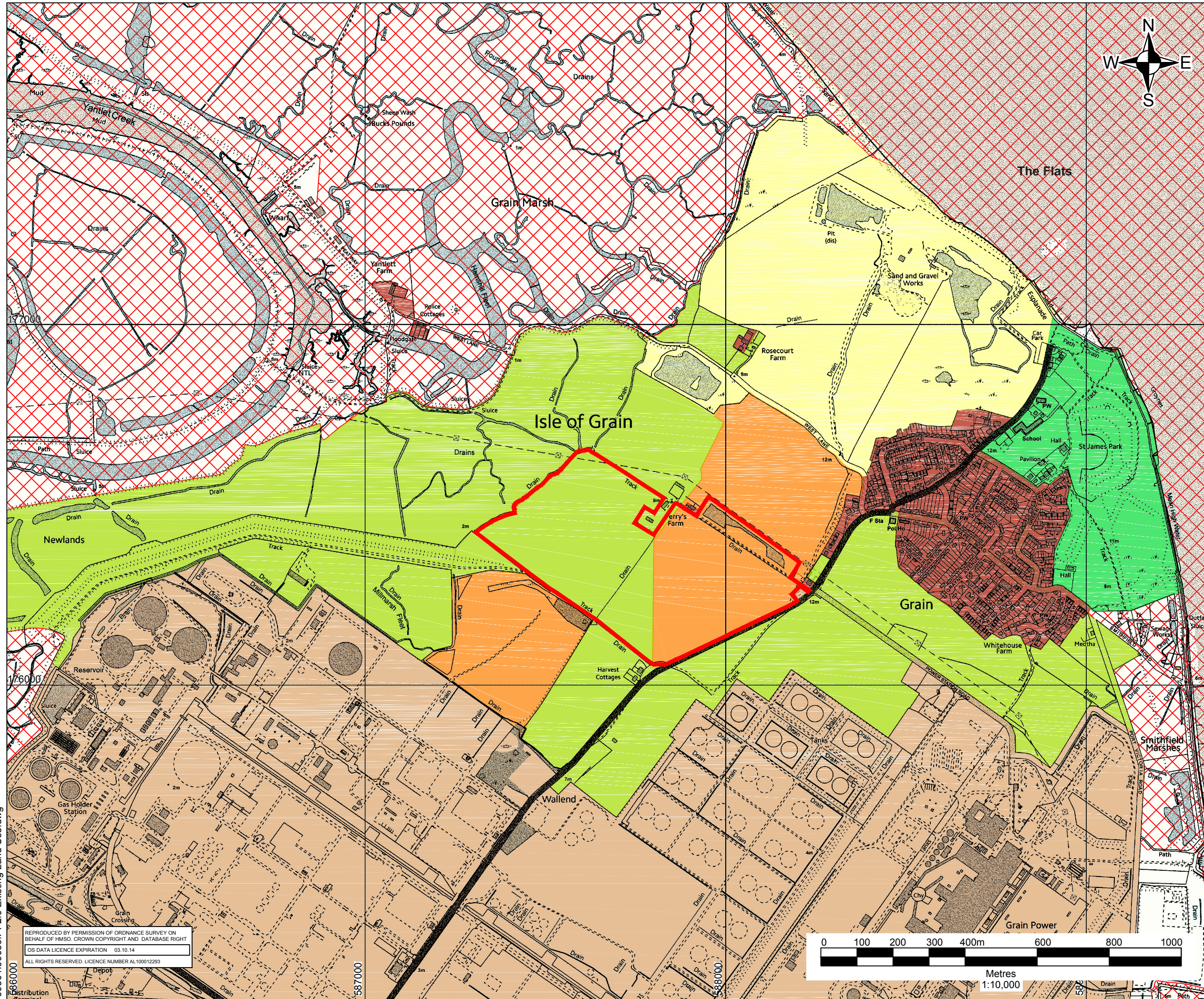
**PERRYS FARM  
 SCOPING REPORT  
 SITE LOCATION PLAN**

**PF 1**

Scale 1:10,000 @ A3 Date NOVEMBER 2013

00304\_00039\_Pf1.0 Site Location Plan.dwg  
 1586000  
 Distribution Terminal



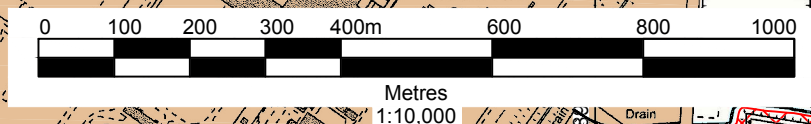


**LEGEND**

	APPLICATION SITE BOUNDARY
	EUROPEAN NATURE CONSERVATION SITES (INCLUDES RAMSAR AND SPA)
	AGRICULTURAL / GRASSLAND
	MINERAL WORKING / PART RESTORED
	MINERAL EXTRACTION AND LANDFILL / PART RESTORED
	RESIDENTIAL
	SCHOOL / PLAYING FIELDS / AMENITY LAND
	INDUSTRIAL

00304\_00039.PF2.0 Existing Land Use.dwg

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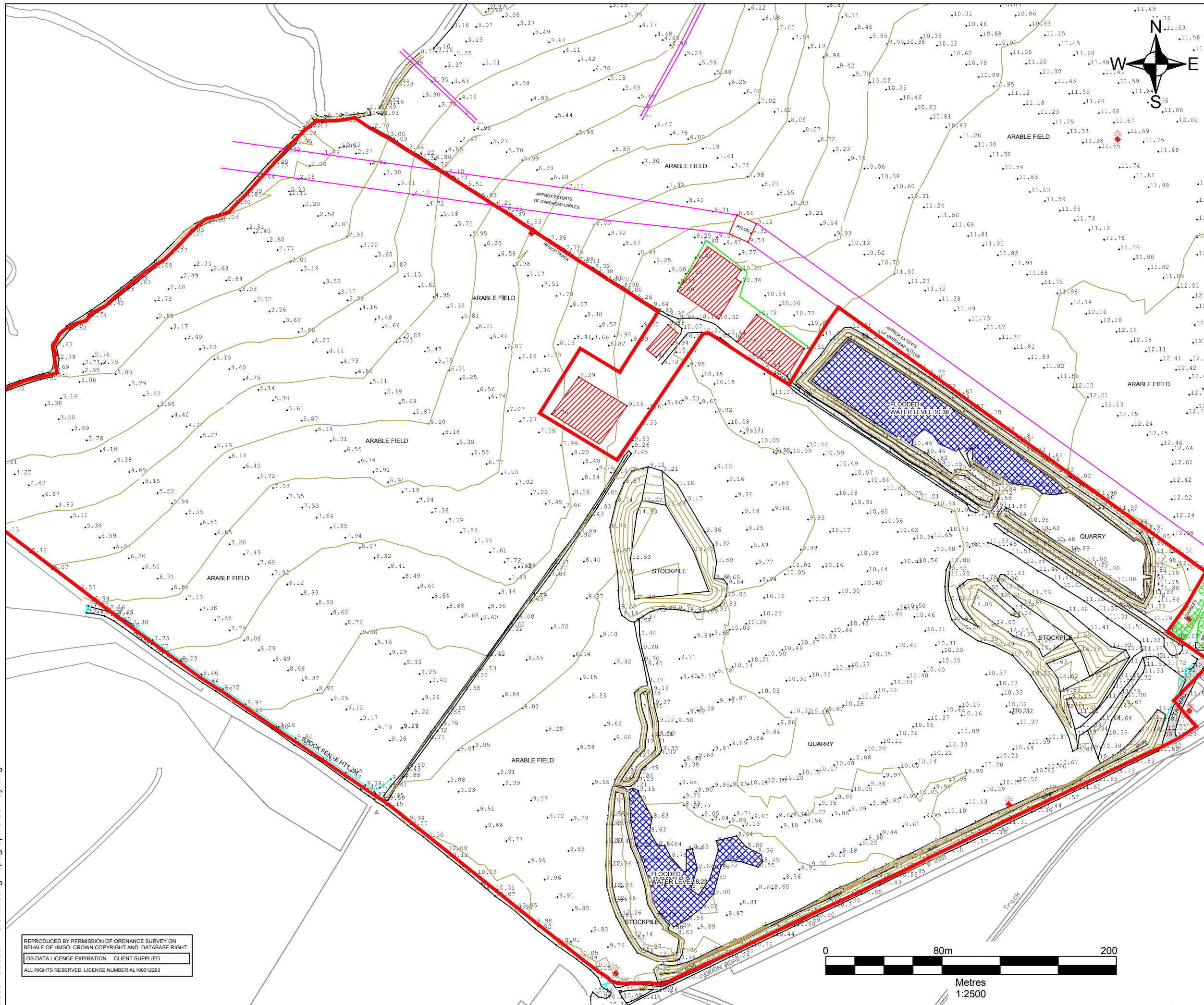
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**PERRYS FARM  
 SCOPING REPORT  
 EXISTING LAND USE**

**PF 2**  
 Scale 1:10,000 @ A3  
 Date NOVEMBER 2013



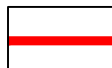
00304\_00039.PF3.0 Existing Topographic Survey.dwg



**NOTES**

1. TOPOGRAPHICAL SURVEY INFORMATION SHOWN ON THIS DRAWING IS BASED UPON THE ORDNANCE SURVEY NATIONAL GRID HEIGHT AND PLAN DATUM DERIVED BY G.P.S.(OSTN02,OSGB36).
2. WHILST EVERY EFFORT HAS BEEN MADE TO INCLUDE ALL ACCESSIBLE DETAIL, SOME FEATURES MAY NOT BE SHOWN IF, AT THE TIME OF THE SURVEY THEY WERE INACCESSIBLE EITHER DUE TO FLOODING OR OVERGROWN AREAS.
3. SURVEY UNDERTAKEN BY SLR CONSULTING JULY 2010.

**LEGEND**

	<b>SITE BOUNDARY</b>		
<b>BOL</b>	Bollard	<b>GV</b>	Gas valve
<b>LB</b>	Litter bin	<b>FH</b>	Hydrant
<b>BS</b>	Bus stop	<b>IC</b>	Inspection cover
<b>CATV</b>	Cable television cover	<b>KO</b>	Kerb outlet
<b>DR</b>	Drain	<b>PB</b>	Letter box
<b>Elec</b>	Electrical ic	<b>LP</b>	Lamp post
<b>EP</b>	Elec. pole	<b>MK</b>	Utility marker
<b>ER</b>	Earth rod	<b>NP</b>	Name plate
<b>FP</b>	Flagpole	<b>PO</b>	Post
<b>G</b>	Gully	<b>PM</b>	Parking meter
<b>BT</b>	Inspection cover (Communications)	<b>RE</b>	Rodding eye
<b>DP</b>	Down pipe	<b>RS</b>	Road sign
<b>SV</b>	Stop tap	<b>MH</b>	Manhole
<b>ST</b>	Stop tap		
<b>TCB</b>	Telephone call box		
<b>TL</b>	Traffic light		
<b>TP</b>	Telegraph pole		
<b>T.P.S.</b>	Tactile paving slabs		
<b>VP</b>	Vent pipe		
<b>WM</b>	Water meter		
<b>WO</b>	Water outlet		

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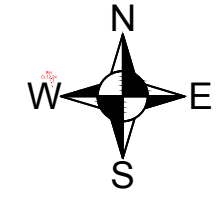
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**PERRY'S FARM**  
**SCOPING REPORT**  
**EXISTING TOPOGRAPHIC SURVEY**

**PF 3**  
 Scale 1:2500 @ A3  
 Date NOVEMBER 2013



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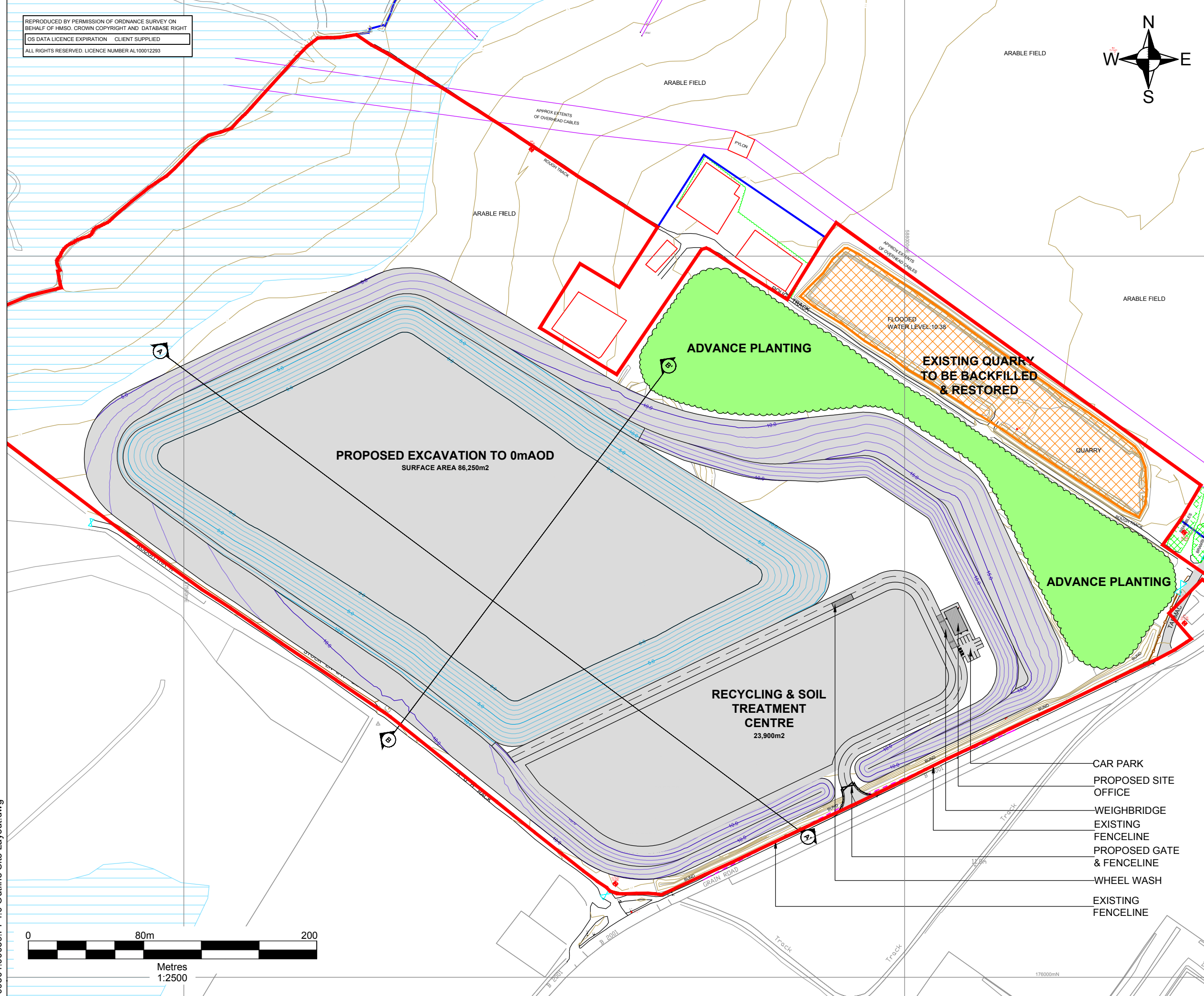


**NOTES**

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**LEGEND**

	SITE BOUNDARY
	TOPOGRAPHIC SURVEY LEVEL CONTOURS (mAOD)
	EXCAVATION LEVEL CONTOURS (mAOD)
	SCREENING BUND LEVEL CONTOURS (mAOD)
	APPROXIMATE FLOOD RISK AREA
	EXISTING FENCELINE
	PROPOSED FENCELINE



**PROPOSED EXCAVATION TO 0mAOD**  
 SURFACE AREA 86,250m<sup>2</sup>

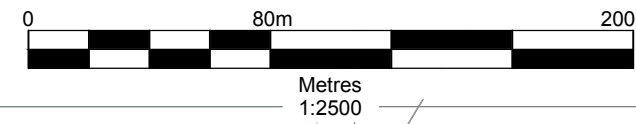
**ADVANCE PLANTING**

**EXISTING QUARRY TO BE BACKFILLED & RESTORED**

**ADVANCE PLANTING**

**RECYCLING & SOIL TREATMENT CENTRE**  
 23,900m<sup>2</sup>

- CAR PARK
- PROPOSED SITE OFFICE
- WEIGHBRIDGE
- EXISTING FENCELINE
- PROPOSED GATE & FENCELINE
- WHEEL WASH
- EXISTING FENCELINE



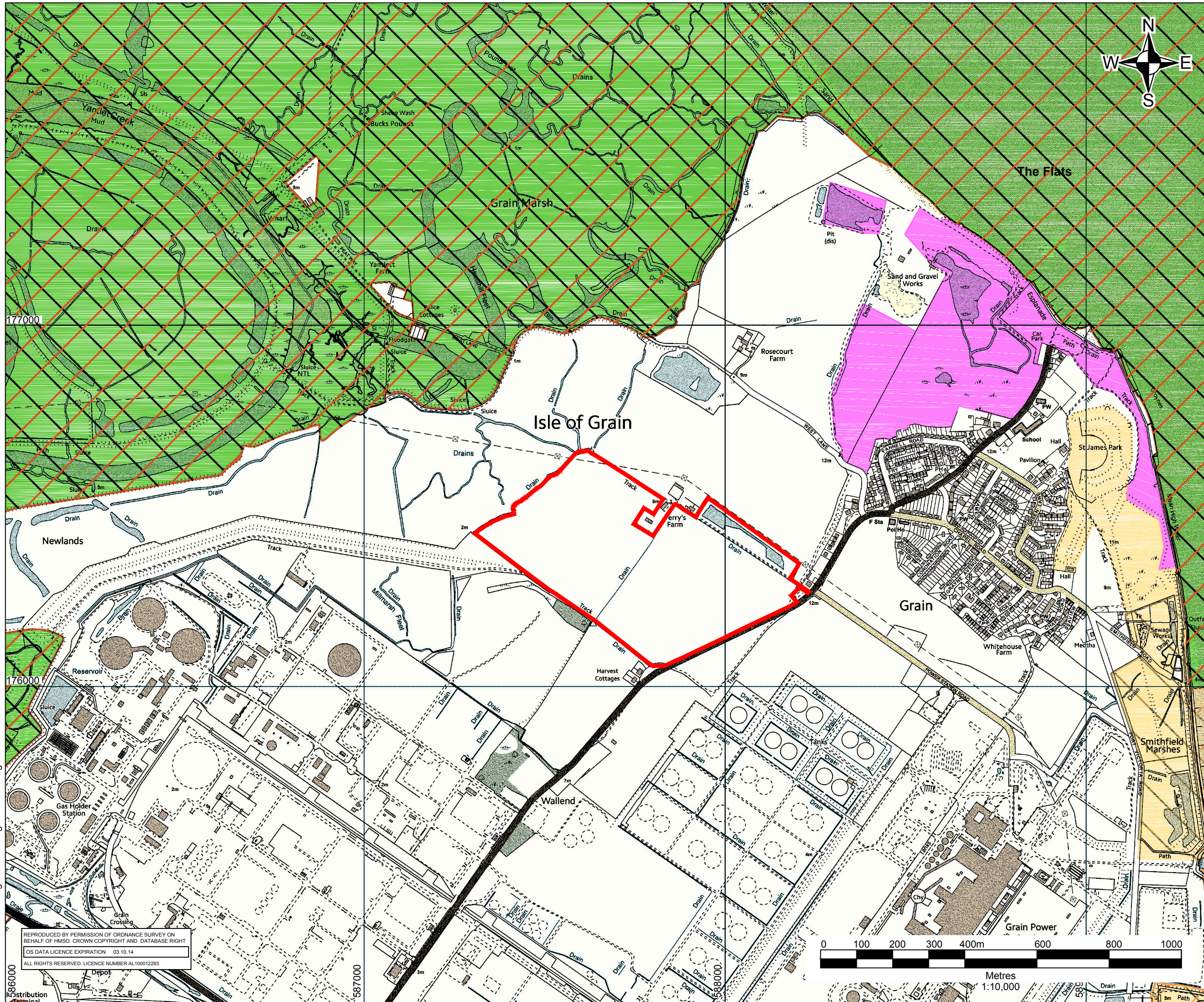
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**PERRYS FARM**  
**SCOPING REPORT**  
**OUTLINE SITE LAYOUT**  
**PF 4**

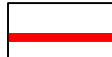
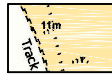
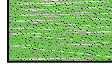
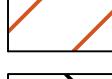


Scale 1:2500 @ A3 Date NOVEMBER 2013

00304\_00039.PF4.0 Outline Site Layout.dwg





**LEGEND**

-  APPLICATION SITE BOUNDARY
-  MEDWAY ESTUARY & MARSHES SSSI
-  SOUTH THAMES ESTUARY & MARSHES SSSI
-  SPA
-  RAMSAR SITE
-  GRAIN PIT LWS

**PEEL ENVIRONMENTAL**

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**PERRYS FARM  
 SCOPING REPORT  
 DESIGNATED ECOLOGICAL SITES**

**PF 5**

Scale: 1:10,000 @ A3      Date: NOVEMBER 2013

00304\_00039.PF5.0 Designated Ecological Sites.dwg

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