

SECTION 1: INTRODUCTION

1.1 PROPOSED RESTORATION WORKS

This Environmental Impact Statement (EIS) provides supporting information to accompany a Waste Licence Application (WLA) to the Environmental Protection Agency (EPA) by Behan's Land Restoration Ltd. for continued operation and extension of its existing inert waste recovery facility at Blackhall, Punchestown, Naas, Co. Kildare.

The location of the application site is indicated on an extract from the 1:50,000 scale Ordnance Survey Discovery series map of the area, reproduced as Figure 1.1.

The waste licence application provides for the importation, placement and capping of approximately 2,240,000m³ of inert soil and rock and inert construction materials (concrete, block, brick, paving stones, granular fill, ceramics etc). It also provides for processing and recovery of inert construction materials for re-use on-site or off-site as secondary aggregate.

Inert materials to be placed at this facility will be sourced from construction and/or demolition sites where testing has indicated that no soil contamination is present. The inert materials will be imported by permitted waste contractors.

1.2 THE SITE

1.2.1 Site Location

The site to which this Waste Licence Application refers is located entirely within the townland of Blackhall, Punchestown, Co. Kildare, approximately 5km south-east of Naas and 5km north-west of Blessington. The plan extent of the lands owned or leased by Behan's Land Restoration Ltd. is outlined in blue on a 1:10,560 scale map of the area, reproduced as Figure 1.2. The plan extent of the application site is also outlined in red on the same figure.

1.2.2 Site Description

The application area comprises approximately 38.1 hectares (91.7 acres). The site comprises a worked-out sand and gravel quarry. The south-eastern quadrant of the former quarry has been almost completely backfilled to former ground level using inert natural soils in accordance with Kildare County Council waste permits Ref. Nos. 37/2001, 37/2001A and 305/2007.

The south-western quadrant has been partially backfilled and restored to agricultural grassland. This area is currently 8m to 10m below surround original ground level and drains south-westwards to a pond within a deep closed depression.

The north-eastern and north-western quadrants together comprise a large deep open void with steep, unvegetated side slopes of sand and gravel. No backfilling or restoration works have been undertaken in these areas.

1.2.3 Site Access

At the present time, the existing inert waste facility is accessed via a local road running from the R410 Regional Road at Beggars End Crossroads to Blackhall townland, refer to Figure 1.1.

Traffic movement within the application site itself is initially over a short section of paved road between the existing site entrance and the wheelwash facility. Thereafter traffic moves within the application site over a network of unpaved haul roads.

1.2.4 Surrounding Land Use

The application site and existing inert waste facility operated by John Behan are located within a largely agricultural area. There are a number of isolated residences in the area immediately surrounding the existing facility, together with a number of sand and gravel extraction sites with associated value added activities (e.g concrete production). Cemex Ireland operates a gravel quarry and concrete batching facility on the opposite side of the local road to the application site.

CPI operate a gravel quarry and washing facility at Newtown Great approximately 1km south-east of the application site. Punchestown Racecourse is located approximately 1km west of the site. Existing land-use in the vicinity of the application site is shown on Figure 1.2

A small number of existing residences are located in close proximity to the site. The nearest residence is which lies immediately west of the application site, which is owned by John Behan, a director of Behan's Land Restoration Ltd. Other residences are located at the north-west corner of the site, three around the north-east corner of the site and one to the south of the site. The locations of these residences are shown on the land-use map in Figure 1.2.

Given its proximity to two local urban centres in Naas and Blesington and to a major employment centre in Dublin, the area is experiencing some development pressure. Kildare County Council has recently refused planning permission for a residence immediately beyond the site, on the opposite side of the local road running along the south-eastern boundary.

1.3 LAND OWNERSHIP

The lands within the application site are fully owned by two separate parties, Mrs Josephine Behan (deceased) and Mr. John Behan.

The estate of Mrs Josephine Behan (deceased) is the full owner of approximately 17.48 hectares of land comprising Folio 13930F in the townland of Blackhall. The lands under consideration are shown marked in green on Figure 1.3. The eastern portion of these lands are currently used for the purposes of inert waste recovery in accordance with requirements of waste permit number 305/2007 issued by Kildare County Council. The lands have been leased to Behan's Land Restoration Ltd. to facilitate restoration of the site to agricultural use.

Mr John Behan is the full owner of the approximately 12.01 hectares of the adjacent lands comprising Folio 29210F, also within the townland of Blackhall. These lands are marked in purple on Figure 1.3. These lands have been substantially restored in recent years using imported soils and stones in accordance with waste permit number 37/2001A issued by Kildare County Council. Recovery (screening and crushing) of construction and demolition waste currently takes place at the centre of this landholding.

The remainder of the application site, approximately 8.55 hectares of land comprising Folio 13931F have recently been acquired from Readymix (Manufacturing) Ltd. by Mr. John Behan. These lands are marked yellow on Figure 1.3.

1.4 THE APPLICANT

Behan's Land Restoration Ltd. and / or John Behan are the owners or leasees of all lands within the waste licence application area.

John Behan, a director of Behan's Land Restoration Ltd., has operated an inert waste facility on lands within the application site under his control since 2001. The facility has been operated in accordance with the conditions of a waste permit (Reference Number WMP37/2001) issued by Kildare County Council for an initial three year period in September 2001.

The waste permit was subsequently renewed for a further three year period in August 2004 (Reference Number WMP37/2001A). Review of waste permit file WMP 37/2001 at the offices of Kildare County Council indicates that it is satisfied that the existing operation is being run in a professional manner.

The waste permit was renewed and issued to John Behan, as nominee for Behan's Land Restoration Ltd., for a six month period from November 2007 (Reference Number 305/2007).

1.5 PLANNING HISTORY

The lands within the application site were previously worked for sand and gravel under a series of planning permissions of 4 year duration, issued to Readymix (ROI) Ltd. (Kildare Co. Co. Planning Reference Nos. 339/76, 1598/82, 799/87, 93/592 and 97/1467). These planning permissions stipulate that the application site should be restored following completion of extraction operations.

John Behan, a director of Behan's Land Restoration Ltd., has operated an inert waste facility on lands within the application site under his control since 2001. The facility has been operated in accordance with the conditions of waste permits issued and renewed by Kildare County Council since September 2001.

1.6 PLANNING CONTEXT

1.6.1 Kildare County Development Plan (2005-2011)

The planning and development controls pertaining to the application site are those outlined in the current Kildare County Development Plan (2005-2011).

Section 3.3 of the Kildare County Development Plan addresses Environmental Infrastructure and Policy issues. Section 3.3.3 states that the Council's objective is to facilitate implementation of the Kildare Waste Management Plan and any subsequent amendments made to it over the life of the County Development Plan.

Section 3.4 of the County Development Plan deals with Waste Management Infrastructure and Policy issues. Section 3.4.3 states that it shall be Council policy to only issue waste permits to applicants who have obtained a certificate of exemption or have a valid planning permission.

Section 14 of the County Development Plan deals with Extractive Industry. The continuation of backfilling activities at the former sand and gravel quarry at Blackhall is consistent with the objectives outlined in Section 14.8 of the current Kildare County Development Plan, specifically Objective EI7 which requires '*all existing workings be rehabilitated to suitable land uses*' and which further states that '*landfilling with inert material is the preferred method*'.

There are no listed sites of geological importance in close proximity to the application site. The nearest protected geological feature is Glen Ding ridge over 2km to the east. There are no tree protection orders in place for any trees or woodlands in the vicinity of the site.

There are no designated or proposed Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Natural Heritage Areas (NHA's) within 2km of the application site. The nearest such site is the lake and bog at Redbog, approximately 4km away. There are three recorded monuments in the vicinity of the application site:

- (i) a rath (or ring fort) immediately beyond the north-western boundary
- (ii) the buried remains of Blackhall Castle on the opposite side of the local road, beyond the south-western corner of the site and
- (iii) Kilsaintlucan Graveyard, again on the opposite side of the local road, beyond the south-eastern corner of the site.

The archaeological heritage policy set out in Section 17.3.2 of the County Development Plan is not to permit development in the vicinity of a recorded feature '*where it detracts from the setting of the feature or which is injurious to its cultural or educational value*'. The ringfort is also listed as a protected structure in Table 20.1 of the County Development Plan (Ref. No. B24-06).

The application site straddles the Eastern Transition and Eastern Upland landscape areas identified in Section 18 of the County Development Plan. Section 19 of the plan does not identify any protected views or prospects into or out of the application site. There are no long-distance walking routes through or in close proximity to the site.

Section 24 of the County Development Plan has zoned the lands to the north-west of the application site, on the opposite side of the local road and immediately north of the Blackhall castle ruins, for low density residential development, up to a maximum of 12 units (Objective PU1). The location and extent of the zoned lands is indicated in Figure 1.2.

1.6.2 County Kildare Waste Management Plan (2005-2010)

The County Kildare Waste Management Plan indicates that at the present time, approximately 1,900,000 tonnes of construction and demolition waste is processed within the county each year. Of this, it is estimated that only about 30%, or 550,000 tonnes is generated within the county, with the remaining 1,350,000 tonnes (mainly soil) imported from

outside the county, mainly from elsewhere in the Greater Dublin Area. The plan suggests that the demand for soil recovery facilities in Kildare is driven by the high level of construction activity in the Greater Dublin Area and by the lack of suitable facilities for soil recovery in close proximity to the city. The projected growth in construction and demolition waste is expected to mirror that of primary waste streams (household, commercial and industrial) and to increase by approximately 16.9% (compounded) above 2005 levels by 2010.

In Kildare, twin strategies are currently employed to deal with waste streams from construction and demolition sites. These entail

- (i) importation of clean, uncontaminated soils to waste permit facilities such as land reclamation and quarry restoration projects and
- (ii) transfer of bulky construction and demolition waste in skips to disposal or recovery facilities licensed by the Environmental Protection Agency.

The plan recognises that in practice soils processed at waste permit facilities may be slightly contaminated by inclusions of timber and metal and other construction waste. It further states that this is *'generally acceptable where every effort has been made to remove such contaminants and their levels are insignificant and where these contaminants do not present any risk to the environment'*.

The Waste Management Plan states that permitted waste facilities are not considered suitable for processing soil contaminated with chemical pollutants such as hydrocarbons. It also states that clean brick, block and concrete rubble may be accepted at permitted waste facilities for re-use in construction of hardstanding areas, access roadways, drainage etc. The plan notes that the majority of mining and/or quarrying waste is disposed of on-site or re-used in land reclamation projects or at other permitted waste facilities.

In its review of implementation of waste management plans, the existing plan notes that a number of waste permits for recovery of construction and demolition waste have been issued by Kildare County Council in order to divert this waste away from licensed municipal, non-hazardous landfills.

The policies and objectives for the future management of construction and demolition waste in County Kildare are discussed in Section 8.12.7 of the Waste Management Plan. The plan states that there is unlikely to be any reduction in the quantity of construction and demolition waste imported to the county for as long as activity in the construction sector remains at a relatively high level. It also identifies a number of direct and indirect problems that have arisen in the county owing to the lack of suitable waste facilities for the acceptance of soils including

- (i) a prevalence of small scale unauthorised raising of one-off sites for development purposes
- (ii) unsuitable lands in low-lying areas with poor road networks being filled
- (iii) unauthorised waste activities
- (iv) additional costs and delays being borne by the construction sector
- (v) additional costs and delays to local authority works and projects

In order to deal with existing and future quantities of construction and demolition waste quantities, the plan envisages that there should be at least 10 strategically located permitted waste facilities in the county, each accepting in excess of 200,000 tonnes of inert soil per annum. At the time the plan was drafted in 2005, there were only four or five such facilities in the county.

The plan puts forward a number of recommendations in respect of permitted waste facilities for the acceptance of inert material. These are as follows :

- (i) waste permits for importation of inert waste soils are considered to be recovery activities. Therefore it is important that there is beneficial re-use of the soil. Raising land that is already in a reasonable condition would not generally be acceptable. Raising of land may be considered in conjunction with planning for restoration of a worked out quarry, raising of poor unproductive land in agricultural / recreational terms and raising of development land

- (ii) generally, the facility should accept only the minimum amount of waste required to carry out works to a satisfactory standard.
- (iii) in accordance with Article 16 of the Waste Management (Permit) Regulations 1998, a hydrogeological report must be submitted, prepared by a suitably qualified person, assessing the risk to groundwater from the material proposed to be deposited at the facility. This report must detail proposals to ensure the traceability of the material imported into the site and its place of origin, sampling procedures to be carried out on the material imported into the proposed facility and monitoring to be carried out on surface waters / groundwaters at the proposed facility.
- (iv) A site survey is required showing the existing ground levels and the proposed levels for the facility. A void space calculation is also required.
- (v) In terms of site selection, the following hierarchy shows the favoured option in order of preference:
 - re-use of material where produced
 - quarry restoration
 - land reclamation
 - agricultural / recreational use
 - raising of development land
 - raising of sites for one-off houses.

It is asserted that continuation of existing backfilling, restoration and recovery activities at the former sand and gravel quarry at Blackhall is totally consistent with the stated objectives of the current Kildare Waste Management Plan (2005-2011).

1.7 ENVIRONMENTAL GAIN

The ongoing works at the former sand and gravel quarry at Blackhall will eventually result in complete infilling of a large open void and restoration of the landscape to its original pre-extraction condition. It will also provide for better protection of the underlying groundwater resource, which is currently extremely vulnerable due to the absence of any protective soil cover

1.8 ALTERNATIVES

Given that site restoration / recovery activities (such as those envisaged at the applications site) can only be undertaken where previous land-use activities have created a disturbed ground surface, degraded landscape and/or derelict, non-productive land, it is not appropriate to identify and appraise the merits of alternative candidate sites for the proposed waste recovery activities.

The available soil and groundwater data indicates that the inert soil recovery / site restoration works undertaken at the application site to date have not had any detrimental impact on the local water environment. Assuming that activities at the site continues to be managed as heretofore, it is considered reasonable to assume that established operations can continue without any significant adverse impact on groundwater quality.

1.9 CONTRIBUTORS

Behans Land Restoration appointed John Barnett and Associates to prepare this Environmental Impact Statement in support of its Waste Licence Application for the continued operation and extension of its existing inert waste and material recovery facilities at Blackhall, Punchestown, Naas, Co. Kildare.

Sections 1 and 2 of this EIS comprises an introduction and detailed description of the proposal and has been prepared by John Barnett and Associates in consultation with Behan's Land Restoration Limited.

Sections 3 to 11 of the EIS provide details of existing environmental receptors, and for each receptor, provides an assessment of the potential environmental impacts of the proposed development and details of mitigation measures, where these are considered practicable or feasible.

The contributors who have assisted in the preparation of this EIS are identified by topic overleaf :

| TOPIC | CONTRIBUTOR | COMPANY |
|-------------------------------|--------------------------------|----------------------------------|
| Description of Development | Derek Luby BE MSc MIEI | John Barnett and Associates |
| Human Beings | Derek Luby BE MSc MIEI | John Barnett and Associates |
| Flora and Fauna | Sinead McDonnell BSc | John Barnett and Associates |
| Soils and Geology | Mike Kelley BSc MSc PE MIEI | John Barnett and Associates |
| Surface Water and Groundwater | Louise McCann PhD | SLR Consulting |
| Air Quality and Climate | Lorraine Holland BSc | John Barnett and Associates |
| Noise and Vibration | Lorraine Holland BSc | John Barnett and Associates |
| Landscape | Paula McCarthy BSc | John Barnett and Associates |
| Cultural Heritage | Maeve Tobin MA | Irish Archaeological Consultancy |
| Material Assets | Derek Luby BE MSc MIEI | John Barnett and Associates |
| Traffic | Sinead Malone | Atkins (Cork) |
| Co-ordination of EIS | | John Barnett and Associates |

Table 1.1 Contributors to Environmental Impact Statement

Each contributor has been fully briefed about the proposal and the background to it. They have also visited the site and are familiar with the local environment.

1.9 CONSULTATIONS

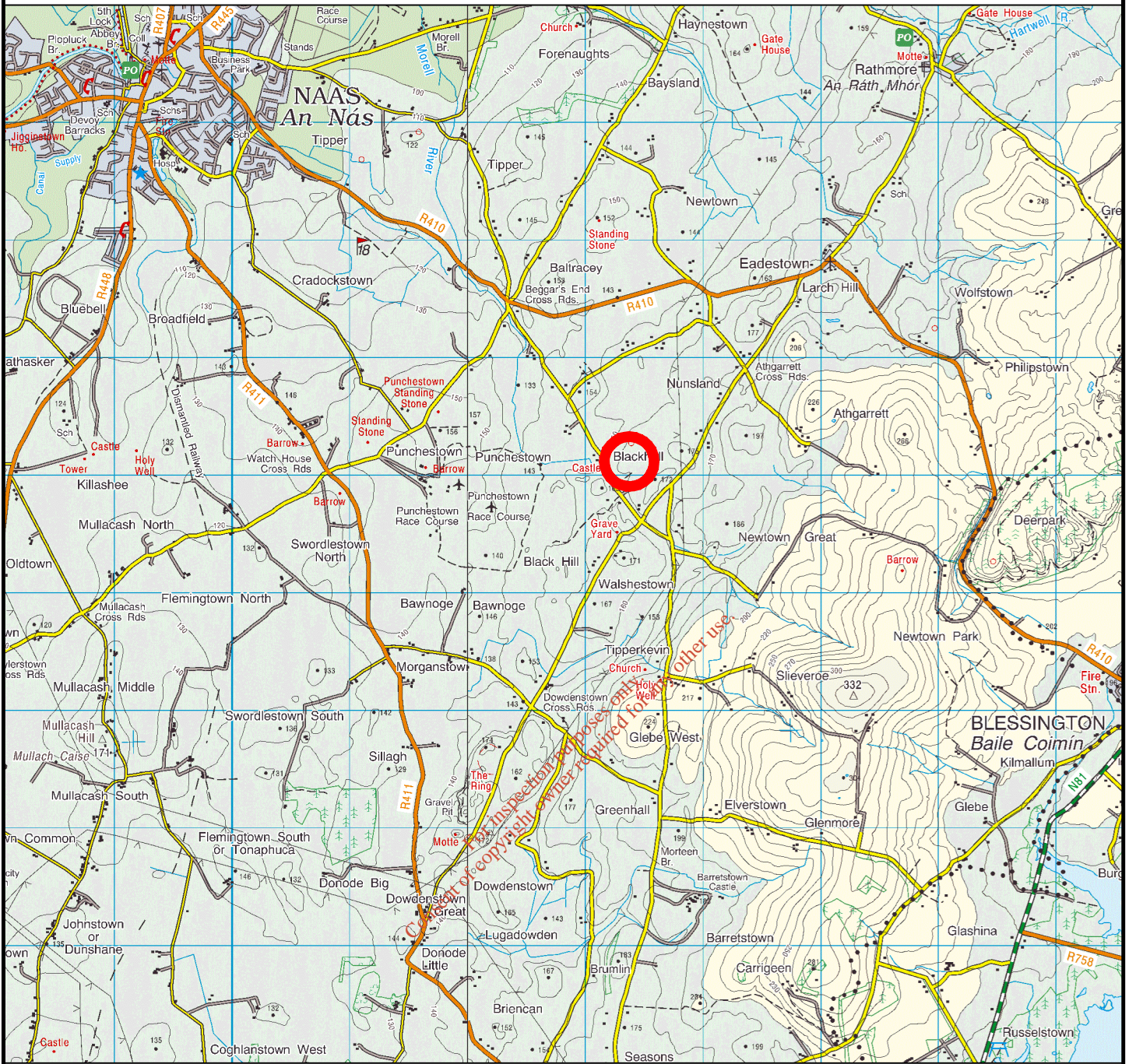
In preparing this Environmental Impact Statement, consultations were had with a number of organisations and agencies including

- Kildare County Council (Planning and Environment sections)
- Environmental Protection Agency (Office of Licensing and Guidance)
- Geological Survey of Ireland (to discuss aquifer classification)

Other consultations and informal discussion held by contributors in undertaking their environmental impact assessments are detailed in the specialist environmental sections of the EIS, together with details of relevant archives and documentation held by state agencies and organisations

FIGURES

For inspection purposes only.
Consent of copyright owner required for any other use.

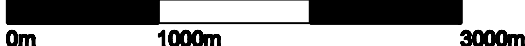


Legend

 Location of Site


Extract from 1:50,000 O.S. Discovery Series Map No. 56

1:50,000



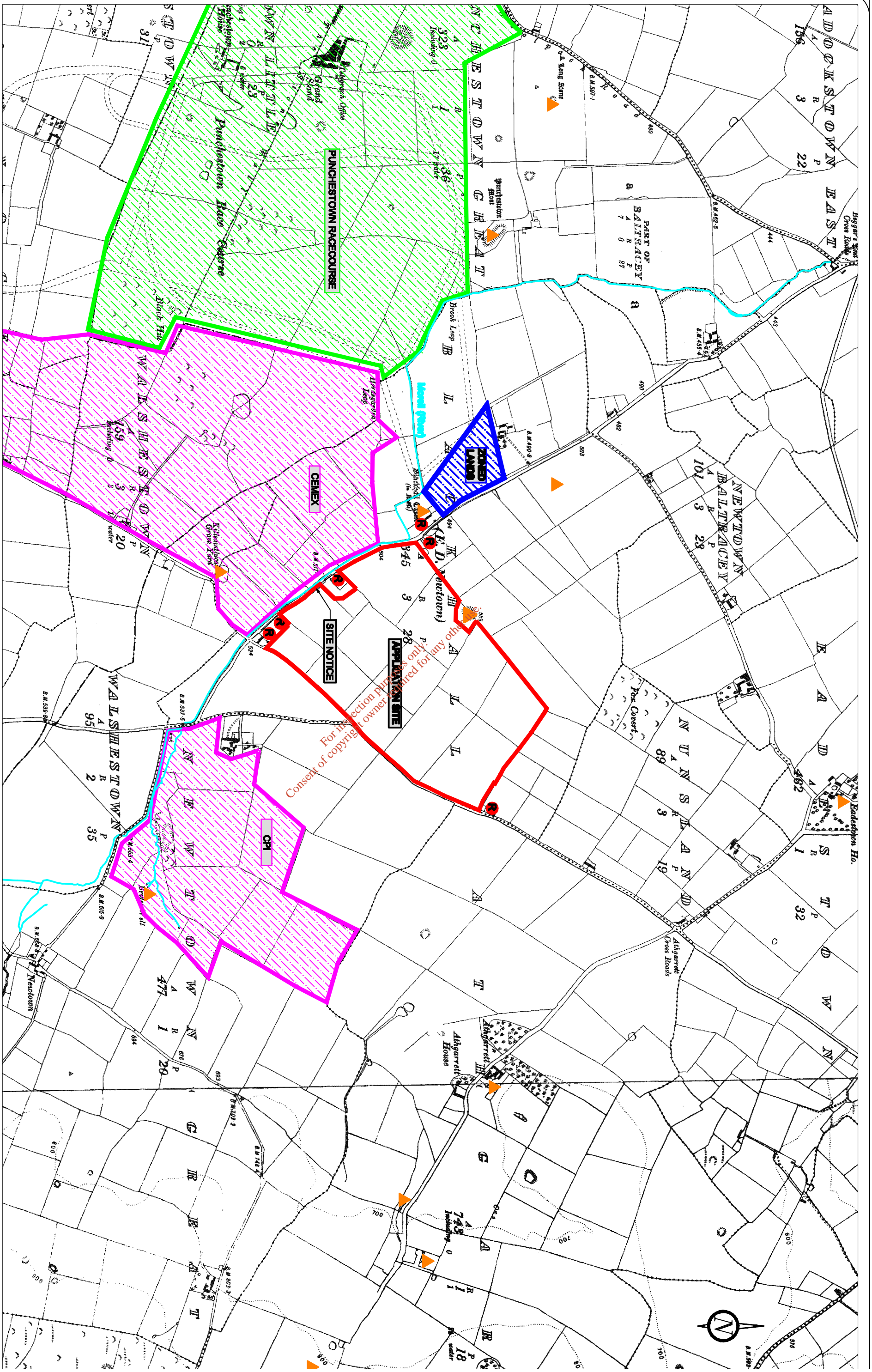
0m 1000m 3000m

Ordnance Survey Ireland Licence No. SU 0000707 (c)
Ordnance Survey Ireland & Government of Ireland



JOHN BARNETT & ASSOCIATES
7 DUNDRUM BUSINESS PARK
WINDY ARBOUR
DUBLIN 14

| | |
|--|-------------------------|
| Site: LANDS AT BLACKHALL, CO. KILDARE | |
| Title: SITE LOCATION PLAN | |
| Drawn: PM/MK | Scale: 1: 50,000 |
| Job. No: 3746 | Date: March 2008 |
| FIGURE 1.1 | |



BEHAN'S LAND RESTORATION LTD.
 BLACKHALL, PUNCHESTOWN
 NAAS, CO. KILDARE

JBA
 JOHN BARNETT & ASSOCIATES
 7 DUNDRUM BUSINESS PARK
 WINDY ARBOUR
 DUBLIN 14

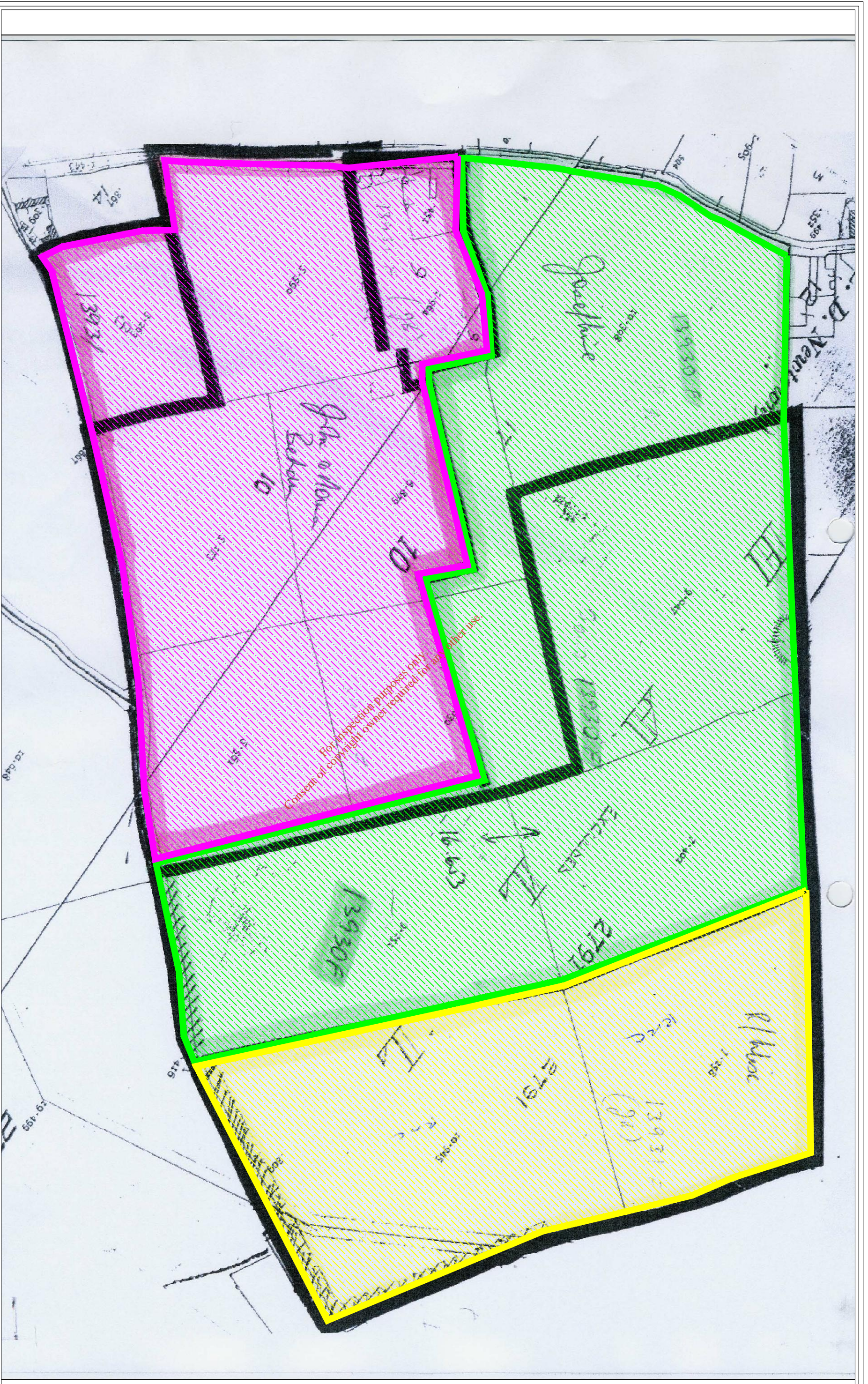
LEGEND & NOTES:

- Application Site
- Priority / Leisure
- Active Quarry Operations
- Zoned Lands (P.U1)
- Residence
- Monuments & Listed Structures
- Watercourse

| Rev. | Date | By | Description |
|------|--------|-----|-------------|
| 1 | FEB 08 | MK | |
| 0 | FEB 08 | LMC | |

Site: LANDS AT BLACKHALL, CO. KILDARE
Project: RESTORATION OF FORMER GRAVEL PIT
Title: APPLICATION SITE AND ADJACENT LAND USE
Drawn: MK
Scale: 1:10,500
Job No: 3746
Date: March 2008

FIGURE 1.2



BEHAN'S LAND RESTORATION LTD.
 BLACKHALL, PUNCESTOWN
 NAAS, CO. KILDARE



JOHN BARNETT & ASSOCIATES
 7 DUNDRUM BUSINESS PARK
 WINDY ARBOUR
 DUBLIN 14

LEGEND & NOTES:
 John Behan Landholding
 Josephine Behan (deceased) Landholding
 John Behan Landholding
 (previously Ready/ix Ltd)

| Rev. | Date | By | Description |
|------|--------|-----|-------------|
| 1 | FEB 08 | MK | |
| 0 | FEB 08 | LMC | |

| | |
|---------------|----------------------------------|
| Site: | LANDS AT BLACKHALL, CO. KILDARE |
| Project: | RESTORATION OF FORMER GRAVEL PIT |
| Title: | APPLICATION SITE: LANDHOLDINGS |
| Drawn: MK | Scale: 1:2500 |
| Job. No: 3746 | Date: March 2008 |

FIGURE 1.3