

ATTACHMENT A

Non-Technical Summary

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WASTE LICENCE APPLICATION
NON-TECHNICAL SUMMARY
RECYCLING FACILITY AT
O'REGAN'S QUARRY PRODUCTS LTD.
TULLIGMORE
DRIPSEY, CO. CORK

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Prepared For: -

O'Regan's Quarry Products Ltd.
The Mills Commercial Park,
Crookstown,
Co. Cork.

Prepared By: -

O' Callaghan Moran & Associates,
Granary House,
Rutland Street,
Cork.

19th January 2009

1 NON-TECHNICAL SUMMARY

O'Regan's Quarry Products Ltd. (O'Regans) is applying to the Environmental Protection Agency (EPA) for a Waste Licence for their facility at Tulligmore, Dripsey, County Cork.

The application for a Waste Licence is in accordance with the requirements of the Waste Management Acts, 1996 to 2003. This non-technical summary contains the information specified in Article 12 (1) (u) of the Waste Management (Licensing) Regulations, 2004 (S.I. No. 395 of 2004).

Compliance with Requirements of the Waste Management Act 1996 to 2003

Best Available Techniques (BAT) will be used to prevent/eliminate or, where this may be deemed not practicable, limit/abate/reduce emissions of environmental concern resulting from on-site recovery activities.

Nature of the Facility

The proposed development involves the construction and operation of a recycling facility for C&D waste and a composting area for green waste. The facility will only accept potentially recyclable C&D materials – concrete, bricks, tiles, timber, soils and stones. The green waste will comprise wood wastes, garden and park waste, possible grass and shrub trimmings and timber and wood waste recovered from the C&D materials. The green waste accepted at the site will be from waste contractors with a valid waste collection permit or those exempt from the permit process e.g. landscape gardeners.

Classes of Activity

The relevant activities as per the Fourth Schedule of the Waste Management Acts 1996 – 2005 will be as follows: -

Fourth Schedule – Waste Recovery Activities

Principal Activity:

- 2: 'Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological processes)'.

- 4: 'Recycling or reclamation of other inorganic materials'.
- 13: 'Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced'.

Quantity and Nature of the Waste to be Recovered or Disposed

The facility will accept only the waste types set out in Table H.1 of the application form. A maximum of 285,000 tonnes per annum will be handled on-site. Total waste inputs for are shown on Table 1.1

Table 1.1 Total Waste Inputs

Waste Type	Maximum Capacity
C & D	180,000
Soils & Subsoil	100,000
Greenwaste (Commercial)	5,000
Total	285,000

Raw and Ancillary Materials, Substances, Preparations, Fuels & Energy used on the Site

Raw materials and energy to be used on-site include: -

- Diesel for on-site plant equipment,
- Hydraulic oil and engine oil for use in on-site equipment,
- Electricity,
- Water.

Plant, Methods, Processes, Abatement, Recovery, Treatment and Operating Procedures

The plant that will be used at the facility on a regular basis includes: -

- Front Loading Shovel

- Screen(s)
- Crusher
- Dumper Trucks
- Mechanical Grab

It is anticipated that the majority of the C&D materials delivered to the facility will be in O'Regans vehicles. The remainder of the materials will be delivered either by waste contractors with a valid waste collection permit, or those exempt from the permit process (i.e. producers). Casual deliveries from householders will not be accepted. This will minimise the risk of the delivery of unsuitable material. Green waste will only be accepted from waste contractors with a valid waste collection permit or those exempt from the permit process e.g. landscape gardeners. Wastes will not be accepted from individual householders.

Waste Processing

C&D Materials

It is expected that the majority of the C&D materials accepted at the site will have been pre-segregated at the point of generation, in line with best practice in the construction industry. However, it is probable that occasional stray wastes (gas cylinders, empty paint tins, plastic), not suitable for processing will be present.

The delivery vehicles will be weighed on the weighbridge and the materials inspected by the weighbridge operator. Any deliveries which, upon inspection, is found to contain large quantities of unsuitable materials e.g. domestic waste, paper and plastics, will not be accepted. In such events the weighbridge operator will record the name of the waste delivery contractor, the driver, the registration number of the vehicle and the nature and origin of the waste. The operator will instruct the vehicle driver to return the waste to the producer. Records of any such incidents will be maintained on-site and reported to the Council.

Clean soils and stones will be directed to the active reinstatement areas, where the materials will be off-loaded and graded using a dozer. The dozer operator will inspect the soils and any stray contaminants e.g. timber, plastic will be manually removed and brought to the quarantine area. All other materials will be off-loaded at the C&D recycling area, where a further inspection will be carried out. Any further materials identified as not suitable will be immediately removed and, where practical, returned to the delivery vehicle. If this is not practical the material will, depending on its nature (e.g. gas canisters, metal), either be stored in a quarantine area or placed in the containers used to store stray contaminant.

In the event of the producer or contractor refusing to remove the unsuitable materials O'Regans will ensure that they are removed off-site and disposed of at an appropriate

facility as soon as practical. O'Regans will also ensure that the stray contaminants removed from the incoming materials are sent to appropriate off-site recovery/disposal facilities. O'Regans will maintain records of the waste type, quantity and destination of the materials.

Timber, which may present, will be separated out manually and transferred to the green waste composting area. The material will then pass through a mechanical screen to remove the fine fraction e.g. subsoil and topsoil. This fine fraction will be used on-site for reinstatement purposes. The larger fraction from containing concrete, brick etc will pass through a crusher to produce an inert recycled aggregate.

It is expected that the majority of the recycled aggregate will meet the relevant construction quality standards and will be sold as products. The residual inert materials that do not meet these standards will be used on site in the reinstatement works.

Green Waste

All delivery vehicles will be weighed on the weighbridge, where the waste will be inspected by the operator. Any deliveries which, upon inspection, is deemed not to be suitable will not be accepted. In such events the weighbridge operator will record the name of the waste delivery contractor, the driver, the registration number of the vehicle and the nature and origin of the waste. The operator will instruct the vehicle driver to return the waste to the producer. Records of any such incidents will be maintained on-site and reported to Cork County Council.

Information Related to Section 40(4) (a) to (d) of the Waste Management Act

Details of the emissions from the proposed extension are presented in Sections 6, 7, 9 and 10 of the EIS which accompanies this application. The emissions will not result in the contravention of any relevant standard or emission limit prescribed under enactment.

The proposed site activities are based on best management practice and take into consideration the BAT Guidance Note for the Waste Sector: Waste Transfer Activities published by the EPA. The facility operations, when carried out in accordance with licence conditions, will not cause environmental pollution.

The facility manager and deputy will complete the FAS Waste Management Training Programme, or equivalent agreed with the Agency, prior to the start of waste acceptance.

Energy will be used efficiently in the carrying out of proposed activities although the proposed composting process is not energy intensive. Necessary measures will be taken to ensure limited consequences for the environment from accidents or the permanent cessation of activities at the site.

Source, Location, Nature, Composition, Quantity, Level and Rate of Emissions

Surface Water / Groundwater

The lands are located in the catchment of the Dripsey River, which is a sub-catchment of the River Lee. An unnamed stream, which is a tributary of the Dripsey, forms part of the eastern site boundary. The applicant has a Trade Effluent Licence (W.P. (W) 13/08) to discharge water used in the on-site gravel washing plant to the stream. The water is initially treated in on-site settlement ponds. The licence sets a daily maximum discharge of 2,000 m³ over the period from October to April.

There are no direct emissions to groundwater from the facility. Three groundwater monitoring wells were installed on the site in 2007 MW-2, MW-3 and MW-4 at the south western, northern and north-eastern perimeter of the site.

Dust

It is not anticipated that dust will be a significant problem at the facility. Potential sources of dust include vehicle manoeuvring on paved and unpaved areas, C&D processing activities and loading/unloading materials.

Odours

The waste that will be accepted and processed at the site will not be malodorous. Food bearing wastes or sludges will not be accepted and any unsuitable or malodorous waste delivered to the facility will be removed off-site as soon as practical.

Noise

The potential noise sources include gravel excavation and processing, C&D processing, green waste screening and shredding and vehicle movements.

Assessment of the Effects of Emissions on the Environment

Groundwater / Surface water

When the site is operational, there will be no direct or indirect long-term emissions to ground or groundwater. The provision of extensive paved areas and secondary containment of the oil storage area minimises the potential for short term direct or indirect discharges to ground or groundwater, including dangerous substances, in the event of spill or leak. The discharge of water to the stream on the eastern boundary is only associated with the quarrying activities. Waste activities will not result in any discharges to the stream or other off-site water courses.

Dust

O'Regans have installed a dust suppression system along the access road and some of the paved areas that are used for vehicle manoeuvring. A water bowser and tractor are used to damp down unpaved areas of the site in dry weather. These also act as a backup in the event of a problem with the fixed dust suppression system. The layout and general topography of the site limits the potential for dust emissions beyond the site boundary.

Odours

There should be no odour problems when the facility is fully operational due to the types of material accepted. Any material with the potential to cause an odour such as food waste and sludge will not be accepted. Should any of this material be delivered to the facility it will be removed as soon as practical.

Noise

Noise predictive modelling indicates that noise from the site will not adversely impact on the nearest noise sensitive locations. Noise emissions will generally not be audible off site. It is proposed to construct a perimeter berm around the waste management facility prior to the commencement of waste acceptance at the facility.

Monitoring and Sampling Points

Groundwater

There are three groundwater wells at the site which it is proposed to monitor annually for Electrical Conductivity, pH, Total Organic Carbon, Total Petroleum Hydrocarbons & Mineral Oils.

Dust

Dust will be monitored at four locations on the property boundary three times annually. The measurements will be carried out using Bergerhoff gauges specified in the German Engineering Institute VDI 2119 document entitled "Measurement of Dustfall Using the Bergerhoff Instrument (Standard Method).

Noise

Noise will be monitored annually at the five locations. Four locations are along the western and northern boundaries and one is off-site near the residence to the northeast of the site. The monitoring will be representative of daytime 30-minute L(A)eq and will be carried out in accordance with the ISO1996: Acoustics - Description and Measurement of Environmental Noise.

Odour

It is not proposed to carry out odour monitoring as there will be no malodorous material accepted at the facility.

Surface Water

The trade effluent licence W.P. (W) 13/08 requires monitoring of the discharge to the stream and the stream itself.

Prevention and Recovery of Waste

Waste oils generated during plant and vehicle maintenance will be collected and sent off-site for recovery.

Off-site Treatment or Disposal of Solid or Liquid Wastes

The discharge from the facility is limited to foul water from welfare facilities to an existing septic tank which has been in situ for approximately 30 years.

Leachate will be collected in an underground storage tank and removed as required to a waste water treatment plant. It is not proposed to carry out routine monitoring of this as part of the waste licence. Monitoring will be carried out as requested by the operator of the waste water treatment plant for billing purposes.

Emergency Procedures to Prevent Unexpected Emissions

O'Regans will prepare an Emergency Response Procedure for the facility that addresses all contingencies that might arise including fire, uncontrolled release of leachate and/or oil, facility closure failure and major injury. The procedure will ensure a rapid response to any incident by trained staff and minimise the impact on the environment of any associated emissions.

Closure, Restoration and Aftercare of the Site

It is not anticipated that the waste processing activities will cease in the medium to long term. In the unlikely event that the facility shuts down it will be decommissioned in accordance with an agreed Decommissioning Plan. Post closure measures for the monitoring and maintenance of the building and the restored areas will be agreed with the Agency.

ATTACHMENT B

General

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ATTACHMENT B.1

Applicants Details

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Attachment B.1 Applicants Details

The applicant, O'Regan's Quarry Products Ltd, was incorporated on the 29th January 1999 (Company Reg. No.300658). A copy of the Certificate of Incorporation is included in this Attachment.

The Company Directors are: -

- Martin O'Regan,
- John O'Regan,

The company's registered address is The Mills Commercial Park, Crookstown, Co. Cork.

The applicant leases the property from Dripsey Green Partnership, 24 Main Street, Ballincollig, Co. Cork.

The lease boundary, which is the same as the proposed License Area, is delineated in green on Drawing No. 1, which is included with this attachment.

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Short Certificate of Incorporation of a Company (Electronic Form, for Public Service Use only)

I hereby certify

that company number **300658**,
O'REGAN'S QUARRY PRODUCTS LIMITED,
was Incorporated under the Companies Acts, 1963 to 1990,
as a Limited Company on
Friday, the 29th day of January, 1999.

Certified by me at Dublin, this **Tuesday, the 11th day of March, 2008.**

(35EED4)

Registrar of Companies
Paul Farrell

Companies Act 1963, section 370(1); Electronic Commerce Act 2000, sections 12 and 13

Note

The above certificate of incorporation is furnished free of charge by the registrar of companies and is valid solely for public service use. A process has been put in place whereby, where necessary, the certificate may be verified by a public service body on inquiry to the registrar.

The applicant for any public service who is required to produce a certificate of incorporation must certify below that the certificate has not been tampered with in any way. The certificate shall be retained by the public service organisation that requires its delivery and may be used as evidence of any wrongful use.

I, (name) EDWARD DALY
of (address) 22, TUCKER STREET, CORK.

hereby declare that this is one and the same as the Certificate of Incorporation of the above company that was made available electronically, for public service use, at my request, by the registrar of companies. I further declare that to the best of my knowledge, information and belief, the said Certificate has not been altered or amended in any way. I acknowledge that it is a criminal offence to forge a public document with intent to defraud or deceive, and that it is an offence to utter a forged document with intent to defraud or deceive, in each case punishable with imprisonment for a term not exceeding two years.

I make this Declaration for the benefit of

(name of public body) _____

to whom I am furnishing the Certificate.

Edward Daly 11 MAR 2008.
Signature of Applicant Date

Forgery Act 1913, section 4 and 6

Consent to publish this document is required for any other use.
For Section Proposes only.

ATTACHMENT B.2

Location of Facility

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Attachment B.2 Location of Facility

The boundary of the application area is marked in red on Drawing No. 2 included with this attachment. The facility is located at Tulligmore, Dripsey, Co Cork as shown on Figure 4.1 (1:50,000) and also on Figure 4.2 (1:2500RPM) of the Environmental Impact Statement (EIS) which accompanies the application. The site services are shown on Drawing No.s 0513902 and 0513905 included with the EIS.

The National Grid Reference is E 148017 N 077170. The area of the site is the same as the area defined by the existing planning permission and leased by the applicant.

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ATTACHMENT B.3

Planning Authority

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Attachment B.3 Planning Authority

O'Regans have received planning permission for the restoration and C&D recycling facility facility (Ref. No 06/11310) from Cork County Council. The proposed greenwaste composting facility is not included for in the planning permission however, O'Regans will apply to Cork County Council for permission to operate the greenwaste composting facility in the future. A copy of the planning permission is included in this attachment. A copy of the letter informing Cork County Council of O'Regans intention to apply for a Waste Licence for the proposed facility is included in Attachment B.6.

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CORK COUNTY COUNCIL
PLANNING & DEVELOPMENT ACTS 2000 - 2006
NOTIFICATION OF DECISION TO GRANT PERMISSION
(with conditions)

Reference No. in Planning Register
REG NO. 06/11310

O'Regans Quarry Products Ltd.
c/o McCutcheon Mulcahy
6 Joyce House
Barrack's Square
Ballincollig, Co. Cork

Action	Project: 1558	Date: 24 OCT 2007	Received	McCutcheon Mulcahy
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Sent to Eidealy
Hally

In pursuance of the powers conferred upon them by the above mentioned Act and for the reason set out in the First Schedule hereto, the Council of the County of Cork has by Order dated **23 OCT 2007** decided to GRANT PERMISSION for the development of land namely;

Continuation of use of 32.2 hectare quarry and development of 2.5 hectare area for construction and demolition waste recycling and green waste composting, provision of hardstanding areas, internal roadways, settlement pond and phased restoration programme.

At: Tullig More Dripsey


In accordance with the plans and particulars submitted by the applicant

On: 10/10/2006 and amended on 30/05/2007 and 31/08/2007

And subject to the conditions (41 No.) set out in Column 1 of the Second Schedule attached hereto. The reasons for the imposition of the said conditions are set out in Column 2 of the schedule.

An appeal against a decision of the Planning Authority may be made to An Bord Pleanála by any authorised person before the EXPIRATION of the period of FOUR WEEKS beginning on the day of the giving (i.e. Date of Order) of the decision of the Planning Authority. (SEE NOTES ATTACHED)

If there is no appeal against the said decision, a grant of PERMISSION in accordance with the decision will be issued after the expiration of the period within which an appeal may be made to An Bord Pleanala. It should be noted that until a grant of PERMISSION has been issued the development in question is NOT AUTHORISED.

 Signed on behalf of the said Council

Date: **23 OCT 2007**

SEE NOTES ATTACHED

Please note that pursuant to S.34(3) of the Act, the Planning Authority has had regard to submissions or observations received in accordance with these Regulations.

In accordance with Article 20, site notice shall be removed on receipt of this notification.

FIRST SCHEDULE

Planning Ref. No. 06/11310

It is considered that, subject to compliance with the conditions set out in the Second Schedule, the proposed development would not seriously injure the amenities of the area, and would be in accordance with the proper planning and sustainable development of the area.

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	Condition	Reason
1	The proposed development shall be carried out in accordance with plans and particulars lodged with the Planning Authority on 10/10/06, 30/05/07 and 31/08/07, save where amended by the conditions herein.	To clarify the documents to which this permission relates in the interests of the proper development of the site.
2	The permission herein permits only the continuation of use of quarrying on the site and the development of a construction and demolition waste facility, as proposed in the documentation submitted to the Planning Authority as part of the formal planning application.	In order to clarify the nature and extent of the permission.
3	The permission as granted herein shall remain valid for a period of 5 years from the date of issue. At the end of the 5 year period or upon cessation of activities, whichever is sooner, the site shall be levelled and reinstated as agricultural lands as indicated in the submissions to the Planning Authority as part of this application and required by condition herein. Prior to the end of this 5 year period the applicant may submit a further planning application to the Planning Authority to continue the permitted works for a defined period of time.	In order to allow for assessment of the impacts of the development permitted and the orderly and sustainable development of the area.
4	The site shall be reinstated and landscaped to the Council's satisfaction and in accordance with a comprehensive scheme which shall be submitted to and agreed with the Planning Authority. This scheme shall provide for:- (a) The replacement of the waste material and top soil to make the land suitable for agricultural or recreational or other purposes and consistent with the surrounding area. (b) Agreements for the moulding of surface levels, the natural surface and subsoil drainage if necessary and the seeding and planting of the site.	To ensure that the site is reinstated to a satisfactory condition.
5	Before commencing any development the developer shall provide, to the satisfaction of the Planning Authority, security in the amount of €50,000 for the provision and satisfactory completion of land reinstatement as required by Condition No. 4.	To ensure that these parts of the development are constructed and completed to a satisfactory standard.
6	Entrance shall be so designed, and roadside boundaries so altered, as to provide sight distances of 160 metres, in both directions, at a point 3 metres back from the edge of the public road.	In the interests of road safety.
7	Appropriate measures shall be taken to ensure that material is not deposited on	In the interests of orderly development.

	the public road as a result of vehicles hauling to, or existing from, this site.	
8	A wheel washing facility shall be provided and used at all entrances and exits of the site to clean vehicles leaving the site. The vehicle wash facility shall be maintained such that no deposits from the site shall be deposited on the public road. There shall be no discharge of soiled water from the wheelwash to adjacent watercourses	In the interests of orderly development.
9	A mechanical road sweeper shall be available at all times while the site is in operation and any material deposited onto the public road shall be removed without delay.	In the interests of orderly development.
10	A fixed water spray system shall be installed to include the access road. This system shall be in operation during all periods of dry weather. Mobile water browsers/sprayers shall be operated in locations where it is impractical or inappropriate to use a fixed water spray system	To safeguard the amenities of the area.
11	No mud or debris from the development shall be carried onto or deposited on the public road in the vicinity of the site.	In the interests of the maintaining the amenities of the area and traffic safety.
12	Advance warning signage shall be erected in accordance with the requirements of the Department of the Environment and Local Government Traffic Signs Manual Chapter 8.	In the interests of orderly development.
13	Surface water shall be disposed of within the site and shall not be allowed to flow onto public road and roadside drainage shall not be obstructed. The existing surface water system taking water from the public road shall not be altered.	To maintain proper roadside drainage and to prevent the flooding of the public road.
14	Vehicles travelling towards the city shall travel northwards along the R619 to Crean's Cross and down along the R579 from there towards the city. Heavy goods travelling to and from the site shall not travel along local county roads.	In the interests of orderly development.
15	Vehicles travelling to the South towards Coachford shall be restricted to the R619.	In the interests of orderly development.
16	The proposed road markings for the right turning lane and hatching area shall be carried out at the developers expense and the developer shall consult with Cork County Council's Area Engineers Officer in this regard prior to the commencement of development.	In the interests of orderly development.
17	Provision shall be made for a right turning lane on the regional road at the site entrance. Details on the road design of the proposed right turning lane, in particular road widths, signing and lining, road drainage and construction specification, shall be submitted to, and	In the interests of orderly development.

	agreed with, the Planning Authority prior to the commencement of development.	
18	There shall be no interference with, bridging, draining or culverting of the adjacent river or any watercourse, its banks, or bankside vegetation to facilitate the developer without the prior approval of the Planning Authority.	In the interests of orderly development.
19	The applicant shall engage the services of a suitably qualified archaeologist, licenced under the Department of the Environment, Heritage and Local Government, to monitor all topsoil stripping associated with the development. Should archaeological material be found during the course of monitoring, the archaeologist may have work on the site stopped pending a decision as to how best to deal with the archaeology. The developer shall be prepared to be advised by the Department of the Environment and Local Government with regard to any necessary mitigating action (e.g. preservation in situ, and/or excavation). The developer shall facilitate the archaeologist in recoding any material found. A report of the monitoring shall be submitted to the Planning Authority and the Development Applications Section of the Department of the Environment and Local Government.	Located within the archaeological zone of potential of a Record of Monument and Places.
20	Dust deposition levels arising out of activities on site shall not exceed 0.50 milligrammes per square metre per day (soluble and insoluble), averaged over 30 days, when measured at the site boundaries. The location and the number of monitoring stations shall be agreed with the planning authority and the monitoring stations shall be installed and operational within two months of grant of planning permission.	To safeguard the amenities of the area.
21	All over ground tanks containing liquids other than water shall be contained in a waterproof bunded area of sufficient volume to hold 110% of the value of the largest tank within the bund. All valves on the tank shall be contained within the bunded area. The bunded area shall be fitted with a locking penstock valve which shall be opened only to discharge storm water to the interceptor. The developer shall ensure that this valve is locked at all times.	To safeguard the amenities of the area.
22	All inflammable substances shall be stored in accordance with fire officers requirements.	To safeguard the amenities of the area.
23	All storage tank areas and drum storage areas shall be rendered impervious to the materials stored therein. In addition, storage tank areas shall be bunded, either	To safeguard the amenities of the area.

	locally or remotely, to a volume of 110% of the largest tank within each individual bunded area. Drum storage areas shall be bunded to a volume equal to 110% of the sum of the volumes of the largest five drums likely to be stored therein. The height of the bund for any drum storage area shall not be less than 300 millimetres.	
24	All soiled water shall be directed to settlement lagoons. All lagoons shall be suitably sized and of secure construction and maintained to the Planning Authority's satisfaction so as to ensure that no soiled water is discharged to the nearby water course.	To safeguard the amenities of the area.
25	The development shall not impact in any way upon the water supplies of the properties in the vicinity. In the event of any such impacts, the developer shall be responsible for the restoration of the supplies to their original quantity or quality or for the provision of a replacement supply to the satisfaction of the planning authority.	To safeguard the amenities of the area.
26	A ground water monitoring programme shall be undertaken by the operator to ensure ground water levels and quality in the vicinity of the site will not be impacted by the proposed construction and demolition recycling activity on the site. This monitoring shall include the monitoring of a minimum of three wells, one of which shall be located above and one below the site's hydraulic gradient. The location of the wells is shall be agreed with the Planning Authority. The programme shall include the monitoring of each well for the following parameters: conductivity, pH, Total Organic Carbon, hydrocarbons and mineral oils and such other parameters as may be indicated by the Planning Authority on a frequency decided by the Planning Authority. The Planning Authority reserves the right to alter the frequency of testing. The first ground water survey shall be carried out within two months of the date of this decision and at intervals thereafter shall be agreed with the Planning Authority. A suitably qualified competent person carrying out the survey shall prepare a report within 2 months of the date of the survey, of their findings and conclusions. The report shall identify any breaches with established groundwater quality guideline emission limit values and condition 8 above and shall set out proposals and time frame for ensuring the said conditions shall be complied with in	To safeguard the amenities of the area.

	<p>all operations carried out on the site, within the time frame set out, unless otherwise directed by Planning Authority. After the first report every subsequent report shall include details of the progress with implementing proposals for ensuring that this condition and condition 8 above shall be complied with in all operations carried out on the site. The report shall also identify all reports of water pollution/impacts on water quality/quantity received by the operator of the facility and should include details of the operator's investigation and response.</p> <p>All reports shall be kept on the premises by the operator for a period of 7 years and copies shall be made available to any member of the public or any officer of Cork County Council who requests them. All reports which contain details of a non compliance with this condition and condition 8 above or reports of water pollution/impact on water quality/quantity received by the operator shall be forwarded to Planning Authority.</p>	
27	<p>The developer shall enter into a maintenance agreement in respect of the proposed treatment plants. A signed maintenance contract shall be submitted to the local authority prior to the development taking place. This contract shall be of a minimum of 5 years duration and shall schedule a minimum of 2 maintenance visits per year with a checklist of works shall be completed as part of the visits. As a minimum the following conditions shall be performed on the effluent treatment plant,(a) monthly inspection of the plant and a log maintained verifying the operational conditions of the plant during the visit,(b)Register of maintenance work. The developer shall operate and maintain to the satisfaction of the planning authority a principal wastewater treatment plant to achieve an effluent quality of 20 mg/l BOD and 30 mg/l suspended solids. There shall be safe and accessible access for all persons working or inspecting the treatment plant. Noise levels in the treatment plant areas shall be controlled and in accordance with Environmental Protection Agency guidelines. There shall be no nuisance odour outside the plant boundaries. Odour abatement shall be managed through a structured monitoring and management of the operation of the wastewater treatment plant. The plant shall be checked after every period of excessive rainfall in order to ensure that</p>	<p>To safeguard the amenities of the area.</p>

	the system has not been affected by flooding. The developer shall install an appropriately sized imported percolation bed on the site after the treatment plant discharge from the treatment. The discharge from the treatment plant post percolation shall be to ground only. There shall be no direct discharge to the adjacent streams from this treatment plant/percolation area	
28	No substance shall be discharged in contravention of Water Quality (Dangerous Substance Regulations) Statutory Instrument, 12, 2001 from any activity arising on site.	To safeguard the amenities of the area.
29	There shall be no discharge of wastewater/soiled water runoff from this site to adjacent watercourses. Water shall be re-circulated from the lagoons for reuse in operations on site.	To safeguard the amenities of the area.
30	Operating hours for all operations on site, including the transportation of vehicles on site shall be restricted to the following hours: Monday to Friday 07.00 to 20.00. Saturday 07.00 to 14.00 No operations or any other activity shall take place on site on Sundays and Bank or Public holidays. The term operations shall be interpreted by the Planning Authority as all activity relating to site operations.	To safeguard the amenities of the area.
31	Noise levels emanating from the development when measured at the site boundaries shall not exceed 55dBA (60 minute Leq) between 0800 hours and 2000 hours, Monday to Saturday inclusive excluding Bank or Public holidays. Noise emissions shall not exceed 45 dBA (15 minute Leq) at any other time. Measurements shall be made in accordance with ISO recommendation R.1996/1 "Acoustics - Description and Measurement of Environmental Noise, Part 1: Basic Quantities and Procedures." If the noise contains a discrete, continuous tone (whine, hiss screech, hum etc.), or if there are distinctive impulses in the noise (bangs, clicks, clatters or thumps), or if the noise is irregular enough in character to attract attention, a penalty of + 5dbA will be applied to the measured noise level and this increased level shall be used in checking compliance with the specified levels.	To safeguard the amenities of the area.
32	The proposed construction and demolition portion of the site shall be used solely for	To safeguard the amenities of the area.

	the recovery of construction and demolition waste, namely concrete, bricks, tiles and ceramics, and only in accordance with the conditions attached to a waste licence.	
33	An Environmental Management system shall be put in place within 6 months from the date of grant of this permission and shall be made available to the planning authority on request whether requested in writing or by a member of staff of the planning authority at the site.	To safeguard the amenities of the area.
34	The applicant shall put in place a programme to ensure that members of the public can obtain information concerning all emissions from this activity. The programme shall be place within 3 months from the date of grant of this permission and shall be available on request whether requested in writing or by a member of staff of the planning authority at the site.	To safeguard the amenities of the area.
35	The applicant shall record all complaints received relating to site operations. The record shall contain the name of the complainant, nature, time and date and a summary of the company's investigation and response including the name of the person who investigated the complaint and their relationship to the developer or operator of the site. All records of complaints shall be made available to the planning authority on request whether requested in writing or by a member of staff of the planning authority at the site.	To safeguard the amenities of the area.
36	The applicant shall ensure that a responsible and suitably qualified person is available on the site at all times during which emissions to the environment are occurring. A designated member of the company's staff shall interface with the Planning Authority or member of the public in the event of complaints or queries in relation to environmental emissions. Details of the name and contact details and the relationship to the operator of this person shall be available at all times to the planning authority on request whether requested in writing or by a member of staff of the planning authority at the site. There shall also be available for inspection by the planning authority at the site the full name and address of who the operator of the site is, who is the occupier of the site and the full name and contact details of any other person or persons who are carrying out activities on the site.	To safeguard the amenities of the area.
37	All results of monitoring required by this permission shall be submitted to the	To safeguard the amenities of the area.

	Planning Authority within one calendar month, or as specified by the Planning Authority. The format for presentation of the results shall be agreed with the Planning Authority. Alternative reporting arrangements may be agreed with the Planning Authority.	
38	The operator of the site shall keep records of all monitoring carried out and shall retain such records for a minimum period of seven years. These records shall state clearly the full name and address of the occupier, the full name and address of the owner of the site, a full list of activities being carried out on the site and who is responsible for each activity. These records shall also have details of any other person or persons carrying out activity on the site and who is responsible for complying with the permission in relation to all activities. These records shall be available for inspection by authorised personnel representing any statutory body involved in pollution control at all reasonable times. Any non-compliance with the terms of the permission shall be high-lighted and the reason why this occurred shall also be outlined.	To safeguard the amenities of the area.
39	Before March 1st of each calendar year, the applicant shall submit a summary report of all monitoring carried out in the previous year. This report shall evaluate the operation of the facilities available on-site in the light of the results achieved in the previous year. The report shall also outline the intentions of the applicant with regard to the upgrading of treatment methods or operations should these results not fully comply with the terms of this permission. All monthly and annual reports shall be certified accurate and representative by the Plant Manager or other senior officer designated by him. Provision shall be made for the transfer of atmospheric monitoring data and related information to the Planning Authority's computer system, on request.	To safeguard the amenities of the area.
40	The operator shall submit a certificate from a suitably qualified professional confirming that the lighting has been installed in accordance with the Guidance Notes for the Reduction of Obtrusive Light issued by The Institute of Lighting Engineers. Baffles shall be fitted to ensure that the lighting is concentrated within the facility and filaments shall not be visible from beyond the boundary.	To safeguard the amenities of the area.
41	At least one month before commencing development, the developer shall pay a	It is considered appropriate that the developer should contribute towards these

<p>special contribution of €30,000 to Cork County Council, updated monthly in accordance with the Consumer Price Index from the date of grant of permission to the date of payment, in respect of specific exceptional costs not covered in the Council's General Contributions Scheme, in respect of works proposed to be carried out, for the provision of road improvement works required in the area as a result of damage to the road structure due to the traffic movements associated with the development. The payment of the said contribution shall be subject to the following:</p> <ul style="list-style-type: none"> (a) where the Council has decided not to proceed with the works in question, the return of the contribution (b) where the works in question are not commenced within 5 years of the date of payment of the contribution or final instalment thereof, or have not been completed within 7 years of that date, the return of such proportion of the contribution, as shall correspond to the proportion of the works not carried out within those periods (c) payment of interest at the prevailing interest rate payable by the Council's Treasurer on the Council's General Account on the contribution or any instalments thereof that have been paid, so long and in so far as it is or they are retained unexpended by the Council <p>No development shall take place until the monies have been paid to the Council.</p>	<p>specific exceptional costs, for works which will benefit the proposed development</p>
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CORK COUNTY COUNCIL

Planning & Development Act 2000 – 2006

O'Regans Quarry Products Ltd.
c/o McCutcheon Mulcahy
6 Joyce House
Barrack's Square
Ballincollig, Co. Cork

Action	Richie Pratt
Project:	1558
Date:	04 MAR 2008
Received	
McCutcheon Mulcahy	

Mulcahy

Planning Register No: 0611310

Application by: O'Regans Quarry Products Ltd.

Of: c/o McCutcheon Mulcahy 6 Joyce House Barrack's Square Ballincollig, Co. Cork

On: 10/10/2006 and amended on 30/05/2007 and 31/08/2007

For: Continuation of use of 32.2 hectare quarry and development of 2.5 hectare area for construction and demolition waste recycling and green waste composting, provision of hardstanding areas, internal roadways, settlement pond and phased restoration programme.

At: Tullig More Dripsey

Further to Notice dated the 23/10/2007, Cork County Council hereby conveys a grant of **PERMISSION** for the application described above subject to the conditions set out in the schedule (if any) attached to the said Notice dated 23/10/2007 of its intention to grant **PERMISSION**

Signed on behalf of Cork County Council

Planning Dept.,
Co. Hall
Cork.

R. O'G
DATE: 25/02/2008

NOTE FOR GUIDANCE OF DEVELOPERS

A grant of Planning Permission or Permission Consequent on the grant of Outline Permission does NOT of itself empower a person to carry out a development unless that person is otherwise legally entitled to do so. Unless otherwise stated or unless it is revoked a Permission or Permission Consequent on the Grant of Outline Permission is valid for a period of five years.

Any development which takes place prior to the payment of a financial contribution required by any of the conditions attached to a Permission or Permission Consequent on the grant of Outline Permission will be unauthorized until compliance with the condition or conditions.

Please note that there is an onus on developers to ensure that there is no danger to the public as a result of the proposed development.

Comhairle Contae Chorcaí Cork County Council

Planning Department,
County Hall,
Carrigrohane Road, Cork.
Tel (021) 4276891 • Fax (021) 4867007
Email: planninginfo@corkcoco.ie
Web: www.corkcoco.ie



O'Regans Quarry Products Ltd.
c/o McCutcheon Mulcahy
6 Joyce House
Barrack's Square
Ballincollig,
Co. Cork

An Rannóg Pleanála,
Halla an Chontae,
Bóthar Charraig Ruacháin, Corcaigh.
Fón: (021) 4276891 • Faics: (021) 4867007
R-phost: planninginfo@corkcoco.ie
Suíomh Gréasáin: www.corkcoco.ie

28/02/2008

Re: Continuation of use of 32.2 hectare quarry and development of 2.5 hectare area for construction and demolition waste recycling and green waste composting, provision of hardstanding areas, internal roadways, settlement pond and phased restoration programme.

At: Tullig More, Dripsey

Reg. No. 0611310

A Chara,

I enclose grant of **PERMISSION** in connection with the above.

Your attention is drawn to Condition No. 5 & 41 of the **PERMISSION**, which requires that before any work commences on the site, you pay financial contributions and/or a bond to the Council. Otherwise, the **PERMISSION** granted is of no effect.

It should be noted that the amount of the contribution is calculated in accordance with the Council's Development Contributions Scheme and will be increased at a rate of 8% per annum in the period between the date on which the value was calculated and the date of payment. Therefore any delay in payment of the contribution will result in an increase in the amount payable.

Please note that payment of development contributions by CASH or CREDIT CARD may only be made at the PAYMENTS OFFICE, COUNTY HALL. Payment by CHEQUE/BANK DRAFT etc. Will be accepted at the PLANNING DEPARTMENT, COUNTY HALL.

Mise, le meas,


PLANNING DEPARTMENT
CORK COUNTY COUNCIL



Important Notice For Developers – Conditions Precedent

The enclosed grant of permission may not automatically entitle you to commence the authorised development. This is because many permissions contain “Conditions Precedent” i.e. Conditions which must be complied with before development commences (Such Conditions usually contain the phrase ‘before development commences’ and may require further details to be submitted to and agreed with the Planning Authority). If there are such conditions on your permission please read on:

1) **Early Submission Of Details;**

Where compliance proposals are required by condition you should make them as far in advance of your anticipated commencement date as possible. This is to enable adequate time for the Planning Authority to consider and, when satisfactory, agree the details, Such proposals may need to be revised before agreement can be reached or, in the absence of agreement, may need to be referred to An Bord Pleanala. These potential delays to starting a development can be mitigated by early submission of proposals in the first instance

There is no statutory timeframe for responding to such compliance proposals and on an ongoing basis the Planning Authority will be dealing with other priorities including current Planning Applications with statutory decision deadlines. **Therefore submit as early as possible and do not commence development until agreement of the Planning Authority has issued in writing.**

2) **Development Commenced In Advance of Compliance Proposals / Agreements**

Any development commenced in advance of full compliance with such conditions (Including conditions requiring financial contributions, bonds, securities) is unauthorised and leaves a developer liable to **enforcement proceeding and heavy penalties**. Simply submitting a proposals may not in itself be sufficient compliance if the condition also require the Agreement / Approval of the Planning Authority. This will also apply where the Planning Authority becomes aware that a development is about to start (E.g. Commencement Notice) and conditions precedent have not been complied with.

3) **Submission Should Be Addressed As Follows;**

Compliance with Conditions
General Office,
Planning Department,
Cork County Council
County Hall
Cork

The above information is intended for your assistance and guidance in avoiding a situation of unauthorised development and the Planning Authority wishes you every success with the development.

ATTACHMENT B.4

Sanitary Authority

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

Attachment B.4 Sanitary Authority

The sanitary authority is Cork County Council. It is not intended to connect to the municipal sewer. Foul water from the onsite toilet and canteen sink is directed to a septic tank and percolation area.

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

ATTACHMENT B.5

Other Authorities

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

Attachment B.5 Other Authorities

The proposed activity is not located within the Shannon Free Airport Development Company area.

The health board is contactable at the address below

HSE
Oak House,
Millennium Park,
Naas, Co. Kildare
+353 (0)45 880400
1890 200893

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

ATTACHMENT B.6

Notices & Advertisements

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

Attachment B.6 Notices and Advertisements

Drawing No. 2 shows the Location of two Site Notices, the text of which is included in this attachment. A copy of the newspaper advertising the application for a waste licence is also included in this attachment. A copy of the letter informing Cork County Council of O'Regans intention to apply for a Waste Licence for the facility is also included in this Attachment.

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

SITE NOTICE

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR

A WASTE LICENCE

O'Regan Quarry Products Ltd (O'Regans) Tulligmore, Dripsey Co Cork is applying to the Environmental Protection Agency (Agency) for a Waste Licence to allow for the restoration of its existing quarry using clean soils and subsoils and operate a C&D recycling and greenwaste composting facility at Tulligmore, Dripsey, Co Cork, which is located at National Grid References: E 148017 N 077170. The proposed development involves the restoration of an existing sand & gravel quarry and the recycling of inert C&D wastes and the development of a greenwaste composting facility. The total volume of waste to be accepted at maximum capacity is 285,000 tonnes per annum.

The relevant waste disposal and waste recovery activities, as per the Third and Fourth Schedules of the Waste Management Acts 1996 to 2005, and the Waste Management (Licensing) Regulations 2004, (S.I. No. 395 of 2004) to which this application relates are: -

Fourth Schedule – Waste Recovery Activities

Principal Activity:

- 2: 'Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological processes)' (P)
- 4: 'Recycling or reclamation of other inorganic materials'.
- 13: 'Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced'.

A copy of this application for a waste licence and such further information relating to the application, as may be furnished to the Agency in the course of the Agency's consideration of the application will, as soon as is practicable after receipt by the Agency, be available for inspection or purchase, at the headquarters of the Agency at P.O. Box 3000, Johnstown Castle, Co. Wexford.

Date: 19/01/2009

Signed: Jim O'Callaghan

Evening Echo Classifieds

Cork 021-4274455
email ads@eecho.ie

Property to let

Ballyvolane, conveniently located 3 bed, close to all amenities, f/f, on bus route, €950p/m. 087-8296361 after 6pm.

Blackpool area 2 bed house. 087-9309889

Blackpool Gerald Griffin St 3 bd town house all mod cons. €230pw.
Upper John St Blackpool 5 bed house €230pw
Spring Lane 2 bed house €160pw
Rooms to rent College Rd €60-85. Tel: 087-9449882

Blackrock, Skehard Rd. 3 bed ff house, suit family, e1000pm. Tel: 086-2604552

Broomfields, Midleton, 4 bed semi-detached house, 4 bathrooms, all mod cons, €1100 p/m. 086-1056859.

Carrigaline, 3 bed bungalow, dual heating, garden, €750. 086-1741137.

Carrigtwohill, 3 bed house, f/f, €285p/w. 087-6257600.

Carrigtwohill 3 bed semi ff. Ph. 086-3789316

Carrigtwohill new luxury 4bed house, f/f, 3 bath, new letting, all mod cons, must be seen, e1,100 p/m. Tel: 021-4815530 or 086-2260236

Castlemartyr 3 bed t/house, €750pm., 087-6876338

Churchfield: 3 bed f/f house to let. No R/A. 086-2235356.

City centre: 2 bed apartment, fully furnished. No R/A 086-8550308

City centre 3 bed house, ff, parking, no ra, 086-3491700

City Centre, 3 bed semi, ff, 086 8226598

Cloyne: 3 bedroom f/f house to let. €750 p/m. RA accepted. Ph: 086 2573833

Cobh, 2 bed apt, ff, town centre. Tel: 087-2626862.

Commons Road 2 bedroom house, FF, gfch, RA accepted. 086-2585831.

Country Cottage style 4 Bed House to let. 4 Miles from Blarney. 8 miles to Cork City. Set on 1/3 of an acre. Private mature gardens. FF. May suit two couples or family. RA accepted. €350 per week. Tel: 087-7520734

Donnybrook, Douglas, 3 bed f/f house, €950p/m, r/a accepted. Ph: 086-0824303.

Double Bedroom FF, with ensuite to let and single bedroom, all mod cons, perfect condition Little Island area. Tel: 087-9056856

Douglas 3 bed house. r.a considered. 087-2066847

Douglas, 3 bedroom furnished townhouse close to village. Car-parking, etc.. Tel: 087 2889492.

Dripsey: 3 bed house €650pm. No R/A. 087 1381884 or 087 9147501

Forge Hill area. 3Bed Brand New House. FF, First time letting. Tel: 087-9047911 anytime.

Property to let

Glanmire, 3 bedroom house to let, rent reasonable no R/A Tel: 086-8311630.

High Profile Shop Unit / Showroom located on Patrick's Quay available to let from March 2009. Flexible terms and conditions available. For Information contact Tom Maloney Properties on (021) 4506488

House to rent also apartment 6 miles west of Macroom, short term might suit Ph: 026-40019

Kerry Pike/ off Lee Rd 2 bed cottage, both ensuite, garden. Suit 2/4 people, short/longterm let. No r/a 086-2232852 021-4275111

Lough area, lovely 3 bed f/f house, 085 7783015

Mallow Town new 2 bed Apt Ra Acc. Tel 087-7974545

Matthew Hill Lehenaghmore

3 bedroom semi detached house, f.f., excellent cond, €1,000p/m. no R/A. 021 4677059 after 7pm

Midleton new 3 bed ff €950pm. 087-9583107

Model Farm Road: Attractive 3 bedroom House. Excellent condition. All mod-cons. 087-0605646

Monkstown, ff 3 bed hse, no RA, €750pm 086-1084491

New 3 bed apt The Maltings, Ballincollig. 087-9574180

Off Roman Street

2 bed, 5 min wlk opera hse, ra accepted. 087-666251

Old Blackrock Rd. 2 bed hse, newly refurbished, all mod cons, back garden, parking. Tel: 086-1721161.

Passage West. refurbished 4 Bed duplex to let in Pembroke Woods. Contact John 086-2659968

Rochestown 1 Bed semi det. Cottage Private parking available Jan 16th, €720 p/m. Ph: 086-0805941

Rochestown, Abbotstown Mews, 3 bed ff townhouse, ensuite ex.cond no ra €950pm. Ph. 086-8550846

Silversprings Court 3 bed semi with garage gfsch €950pm 087-6033168

St. Lukes area. 2 bedroom house to let. 087 6160151

St Lukes Cross

4 double bed FF house, €1250 p/m. All mod cons. Immaculate condition. Avail immediately. 086-8073616

To Let 3 bedroom unfurnished house in Midleton. Tel: 021-4501031

To let, City Centre, 3 bedroom house. 0214293747

Tower, Blarney 2/3 bed det. ofch, sky dish €950pm. 086-8110343 087-8352600

Turners Cross 3/4 bedroom house, recently renovated, E975 pm. 087 2734331.

Property to let

Two bedroomed house in Fair Hill area. Rent reasonable. No R/A. 086-8716088

Wilton 3 bed house to let, f/f, all mod cons, avail immediately, suit prof, no RA. 087-2321445 after 6pm

Property Wanted

1 person requires small house or cottage to rent within 20 mins of city, must have garage or shed, reasonable rent. 021-4917282.

Mature prof female requires an unfurnished house or apt in Cork or surrounds for rental for a 6-12 month period. Ph: 087-9892972.

Transfer wanted from new 3 bed house Gurranabraher/Shandon Area to 3 bed house Douglas, Wilton, Ballyphehane, Lough Areas. Tel: 086-8817275.

Urgently wanted, all types of property for rental in all areas. Contact Niall 087-6896433.

WANTED WANTED Houses to rent for vetted tenants in Carrigtwohill/Glanmire area. Hyde Auctioneers 087 2599767/ 021 4533928

Dogs

Golden Retriever puppies, PBNR. Tel 086 8484042.

Jack Russell pups, small breed, beautiful marked, lemon & white, €150. Tel: 086-4093462

Caravans

MOBILE HOMES BY THE SEA

FROM €6,000
FULLY FURNISHED ON FULLY SERVICED SITE

Call to arrange a viewing: 024 91234
Seafield Holiday Park, Dysart House, Summerfield, Youghal, Co. Cork.

At Browne's Mobile Homes Fermoy. Large Selection of mobile homes for sale. Trade-ins taken. 087-2635795.

Fantastic Offers on new & almost new deluxe Mobile Homes. For special deals Call West Caravans, Killorglin Kerry, Fountainstown, Cork other sites available. Tel: (086) 8313303.

Draws & Raffles

Douglas GAA Lotto Results 11-01-09. Draw One 07, 08, 12, 23, for €4,600. Draw Two 05, 08, 09, 20, For €2,500

Hunting Appointments

Cork Southern Hunt Club meet Lissfehill

Personal

ist 4 Sky
Sky + Box now €25 installation charge applies. Also 2nd box only €7.50 per month. Contact Adrian at Delta Digital 021-4849000 9am - 5pm, 021-4350682 5pm - 9pm. 087-6174033.

Energy Healer coming to Cork city. For appointment call or text 087 2548632

Female 48 would like to meet male for social outings, Cork city. Genuine replies only. Text 087-6696107

FIVE-MILE-INN
Carvery open 7 days, Breakfast served Monday to Saturday Ph. 021-4888104.

Free TV
No Bills, once off payments, UTC, BBC, ITV etc. For Free Quotation 021-4320241

Gamblers Anonymous. 8pm to 10pm. 087 2859552

Alcoholics Anonymous: 021-4500481, 8pm-10pm. w7PO Box 137 An Post, Togher Industrial Est., Cork.

All ballroom, latin and salsa classes, recommencing at Viva Dance Studio, beg. int. adv. Separate classes for adults and children. Ph: 021-4542512.

AngelWorkshop
Putting your life in divine order. Jan 31st. Cork City. €70 pp. 085 8208036 086 1631808

AT Euro Introductions. Today is the first day of the rest of your life. Romance/friendship. (021) 4315180/ 087-2902320

Broadband
Wireless. No phone line required. Cork city and county covered. €19.99 p/m inc vat. T&C apply. 087-8671252.

Call Apex Satellite Services
Tramore Rd Cork on 021 4318355 for the most up to date Sky Offers for new and existing customers. We also provide non - Sky Services eg: Free to Air & Terrestrial Aerials. Maintenance, Non rust dishes, extra rooms, moving house, holiday homes call us on 021 4318355 or text us on 085 1621444 and we will call you

Confidential Fortunes told by Madame Rose Lee for last 30 years. Cards, crystal, palm readings. Will travel to your home or meeting place. Tel: (087) 9052826 for appointment. (As seen on T.V.) Sort out all your big decisions, career concerns, relationship problems etc.

Cork Counselling
The Hazelton Clinic, Ard-fallen Medical Centre, Douglas Road. All types of counselling. Private. Exclusive centre. Team of counsellors from 9am-9pm, 7 days. Please call: 021-4936006

Personal

Eckankar Presents: Spiritual Tools for Life's Challenges. Discover how past lives, dreams and soul travel can benefit your life. Jury's Inn, Andersons Quay, Cork, Sat Jan 17th at 8.00pm. Requested donation €5

Female 48 would like to meet male for social outings, Cork city. Genuine replies only. Text 087-6696107

Female 48 would like to meet male for social outings, Cork city. Genuine replies only. Text 087-6696107

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Gamblers Anonymous. 8pm to 10pm. 087 2859552

HYPNOTHERAPY Clinic can successfully treat smoking, slimming, anxiety, stress, phobias, blushing, personal problems. Free explanatory brochure. Tel: 021 4273575, Therapy House, 6 Tuckey Street, (Registered, Certified, D.H.P.) www.hypnosiseire.com

Learn to play guitar, drums or keyboard. 086-0575409 www.clivesmusic.com

Low Cost Counselling. For immed. apt: 087-6653758

Overeaters Anonymous Support group for anorexia bulimia compulsive overeating 086-3526467 (6-8pm)

Pardoned! Thou [God] hast forgiven thee iniquity of Thy people (Psalm 85:2) 24/7 Bible Hotline: 021-4393334

Psychic Medium Bandon. Tel: 087-7528657

Sky Free to Air Channels available. No bills. One off payment plus all Sky Services installed and repaired. Tel: 087-6668392

Sky Free to Air Channels available. No bills. One off payment plus all Sky Services installed and repaired. Tel: 087-6668392

Sky Free to Air Channels available. No bills. One off payment plus all Sky Services installed and repaired. Tel: 087-6668392

Sky Free to Air Channels available. No bills. One off payment plus all Sky Services installed and repaired. Tel: 087-6668392

St. Aidan's School Bus
Dublin Hill. Seats avail for Sept '09. Tel: 086-6000400

Uptown Grill, 45 MacCurtain Street, now open at 9am for full range of breakfasts.

Thanksgiving

Sacred Heart of Jesus in the past I have asked for many favours. This time I ask for one special favour (say favour) place it in your own broken heart where your father sees it, then it will become your favour not mine. Say for 3 days and promise publication. COL.

Planning Notices

Cork City Council: I Emer O'Sullivan intend applying for Permission to partially demolish existing front garden wall and construct a car park extension to the front of existing pharmacy building and associated ancillary site works at O'Sullivan's Pharmacy, 'Radisson', No. 2 Oakfield Lawn, Ballinlough, Cork City. The planning application may be inspected or purchased at the offices of the Planning Authority, City Hall, Cork during its public opening hours - 9.30am - 4.30pm, Monday to Friday, excluding Public Holidays. A submission / observation in relation to the application may be made to the authority in writing on payment of a fee of €20 within the period of 5 weeks beginning on the date of receipt by the authority of the application.

Cork City Council: I, Catherine Jefferies, intend to apply for Planning Permission to construct a 2-storey, three bedroom dwelling and entrance at 42, Assumption Place, Cobh, Co. Cork. The planning permission may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority, County Hall, Cork during its public opening hours and a submission or observation in relation to the application may be made to the authority in writing on payment of the prescribed fee within a period of five weeks beginning on the date of receipt by the authority of the application.

Cork City Council: I, Stephen Beausang and Christina O'Sullivan Beausang wish to apply for permission to construct a new dwelling with waste water treatment unit and associated site works. Decommission existing septic tank and construct a waste water treatment unit to service existing dwelling and alterations to existing entrance at Ballin-garrane, Shanagarry, Midleton, Co Cork. The planning application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority during its public opening hours and a submission or observation in relation to the application may be made to the Authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the Authority of the application.

Cork County Council: - Outline Permission sought for new boathouse slipway and associated site works at Bandon House, Ballywilliam, Kinsale by Patrick Byrne the Planning Application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy, at the offices of the Planning Authority during its public opening hours and a submission or observation in relation to the application may be made to the Authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the Authority of the application.

Cork County Council: I, Michael O'Brien, wish to apply for permission for modifications, including minor elevational changes and change of use of residential retreat centre to dwelling house with partial use for counselling services, installation of a domestic waste water treatment system & percolation area and all ancillary site works at Monacreagh, Ladysbridge, Co. Cork. The planning application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy at the offices of the planning authority during its public opening hours and a submission or observation in relation to the application may be made to the authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the authority of the application.

Cork City Council: Permission is sought by R & N McDowell to widen the vehicular entrance at no 62, Merrion Court, Montenotte. The planning application may be inspected or purchased at the offices of the Planning Authority, City Hall, Cork during its opening hours 9.30 a.m. to 4.30 p.m. Monday to Friday, excluding Bank holidays. A submission or observation in relation to the application may be made to the authority in writing on payment of a fee of €20 within the period of 5 weeks beginning on the date of receipt by the authority of the application.

Cork City Council: We Stephen Beausang and Christina O'Sullivan Beausang wish to apply for permission to construct a new dwelling with waste water treatment unit and associated site works. Decommission existing septic tank and construct a waste water treatment unit to service existing dwelling and alterations to existing entrance at Ballin-garrane, Shanagarry, Midleton, Co Cork. The planning application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority during its public opening hours and a submission or observation in relation to the application may be made to the Authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the Authority of the application.

Cork County Council: - Outline Permission sought for new boathouse slipway and associated site works at Bandon House, Ballywilliam, Kinsale by Patrick Byrne the Planning Application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy, at the offices of the Planning Authority during its public opening hours and a submission or observation in relation to the application may be made to the Authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the Authority of the application.

Cork County Council: I, Michael O'Brien, wish to apply for permission for modifications, including minor elevational changes and change of use of residential retreat centre to dwelling house with partial use for counselling services, installation of a domestic waste water treatment system & percolation area and all ancillary site works at Monacreagh, Ladysbridge, Co. Cork. The planning application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy at the offices of the planning authority during its public opening hours and a submission or observation in relation to the application may be made to the authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the authority of the application.

Cork City Council: Permission is sought by R & N McDowell to widen the vehicular entrance at no 62, Merrion Court, Montenotte. The planning application may be inspected or purchased at the offices of the Planning Authority, City Hall, Cork during its opening hours 9.30 a.m. to 4.30 p.m. Monday to Friday, excluding Bank holidays. A submission or observation in relation to the application may be made to the authority in writing on payment of a fee of €20 within the period of 5 weeks beginning on the date of receipt by the authority of the application.

Cork City Council: We Stephen Beausang and Christina O'Sullivan Beausang wish to apply for permission to construct a new dwelling with waste water treatment unit and associated site works. Decommission existing septic tank and construct a waste water treatment unit to service existing dwelling and alterations to existing entrance at Ballin-garrane, Shanagarry, Midleton, Co Cork. The planning application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority during its public opening hours and a submission or observation in relation to the application may be made to the Authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the Authority of the application.

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Public Notices

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A WASTE LICENCE
O'Regan Quarry Products Ltd. (O'Regans), Tulligmore, Dripsey, Co. Cork, is applying to the Environmental Protection Agency (Agency) for a Waste Licence to allow for the restoration of its existing quarry using clean soils and subsoils and operate a C&D recycling and greenwaste composting facility at Tulligmore, Dripsey, Co. Cork, which is located at National Grid References: E148017 N077170. The proposed development involves the restoration of an existing sand & gravel quarry and the recycling of inert C&D-wastes and the development of a greenwaste composting facility. The total volume of waste to be accepted at maximum capacity is 285,000 tonnes per annum. The relevant waste disposal and waste recovery activities, as per the Third and Fourth Schedules of the Waste Management Acts, 1996 to 2005 and the Waste Management (Licensing) Regulations 2004 (S.I. No. 395 of 2004) to which this application relates are:

1: 'Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological processes)' (P)

2: 'Recycling or reclamation of other inorganic materials'

3: 'Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.'

A copy of this application for a waste licence and such further information relating to the application, as may be furnished to the Agency in the course of the Agency's consideration of the application will, as soon as is practicable after receipt by the Agency, be available for inspection or purchase at the headquarters of the Agency at P.O. Box 3000, Johnstown Castle, Co. Wexford.

APPLICATION TO CORK COUNTY COUNCIL FOR A WASTE COLLECTION PERMIT
relating to a Waste Collection Activity or Waste Collection Activities in Cork County Council/Cork City Council areas

Cuthbert Environmental, on behalf of Advanced Skip Hire Ltd. of Unit 21 City Link Park, Forge Hill, Cork, will be making an application to Cork County Council within 10 working days from the date of this notice for a Waste Collection Permit to collect Non-Hazardous Construction and Demolition, Commercial, Industrial and other waste in Cork County Council/Cork City Council areas. A copy of the application will, as soon as is practicable after receipt by the Local Authority, be available for inspection or purchase at the offices of the Environment Department, Cork County Council, Inniscarra, Co. Cork.

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Planning Department,
Cork County Council,
County Buildings,
Co Cork.

19th January 2009

RE: Application for a Waste Licence – O'Regans Quarry Products Ltd

Dear Sir / Madam,

We wish to notify you, on behalf of our client O'Regans Quarry Products Ltd, of our intention to make an application to the Environmental Protection Agency for a Waste Licence to allow for the restoration of its existing quarry using clean soils and subsoils and operate a C&D recycling and greenwaste composting facility at Tulligmore, Dripsey, Co Cork, which is located at National Grid References: E 148017 N 077170. The proposed development involves the restoration of an existing sand & gravel quarry and the recycling of inert C&D wastes and the development of a greenwaste composting facility. The total volume of waste to be accepted at maximum capacity is 285,000 tonnes per annum.

The relevant waste disposal and waste recovery activities, as per the Third and Fourth Schedules of the Waste Management Acts 1996 to 2005, and the Waste Management (Licensing) Regulations 2004, (S.I. No. 395 of 2004) to which this application relates are: -

Fourth Schedule – Waste Recovery Activities

Principal Activity:

- 2: 'Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological processes)'. (P)
- 4: 'Recycling or reclamation of other inorganic materials'.
- 13: 'Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced'.

A copy of this application for a waste licence and such further information relating to the application, as may be furnished to the Agency in the course of the Agency's consideration of the application will, as soon as is practicable after receipt by the Agency, be available for inspection or purchase, at the headquarters of the Agency at P.O. Box 3000, Johnstown Castle, Co. Wexford.

Yours sincerely,



Jim O'Callaghan

0813906/JOC/MC

c.c. Mr. Martin O'Regan

email. info@ocallaghanmoran.com Website: www.ocallaghanmoran.com

O'Callaghan Moran & Associates. Registration No. 8272844U

ATTACHMENT B.7

Type of Activity

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Attachment B.7 Type of Activity

The relevant activities as per the Fourth Schedule of the Waste Management Acts 1996 – 2007 will be as follows: -

Fourth Schedule – Waste Recovery Activities

Principal Activity:

- 2: 'Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological processes)'. (P)
- 4: 'Recycling or reclamation of other inorganic materials'.
- 13: 'Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced'.

Table B7 Total Waste Inputs

Waste Type	Maximum Capacity*
C & D	180,000
Clean Soils & Subsoils	100,000
Greenwaste (Commercial)	5,000
Total	285,000

Fee:

4. The recovery of waste.

€10,000

ATTACHMENT B.8

Seveso II Directive

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Attachment B.8 Seveso II Directive

The EC (Control of Major Accident Hazards involving Dangerous Substances) Regs 2000 (SI No. 476 of 2000) does not apply to this facility.

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ATTACHMENT C

Management of the Facility.

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ATTACHMENT C.1

Technical Competence & Site Management

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Attachment C.1 Technical Competence and Site Management

O'Regans currently employs fourteen people at the site. The proposed recycling and composting may lead to an increase in employees, which will include:

- Facility Manager,
- Weighbridge Operator,
- Machine Operators,
- General Operatives,

O'Regans will ensure that the site management and staff are provided with the appropriate training to ensure that the facility is managed in accordance with the Waste Licence conditions and in a manner that does not result in environmental pollution. The facility manager will complete the FAS waste management training course.

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ATTACHMENT C.2

Environmental Management System (EMS)

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Attachment C.2 Environmental Management System (EMS)

O'Regans will develop and implement an Environmental Management System (EMS) for the facility once it is operational. The EMS will, as a minimum, include the following: -

- Management Structure,
- Communications Programme,
- Corrective Action Procedures,
- Environmental Management Programme,
- Schedule of Targets and Objectives,
- Awareness and Training Procedures,
- Document Control Procedures.

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ATTACHMENT C.3

Hours of Operation

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Attachment C.3 Hours of Operation

The proposed normal acceptance and operational hours are

Monday - Friday – 07:00 – 20:00

Saturdays – 07:00 – 14:00

It is not proposed to operate on Sundays or Bank or Public holidays.

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ATTACHMENT C.4

Conditioning Plan

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Attachment C.4 Conditioning Plan

A Conditioning Plan is not required.

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ATTACHMENT D

Infrastructure & Operation

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ATTACHMENT D.1

Infrastructure

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Attachment D.1 Infrastructure

Details of the existing and proposed infrastructure the site are shown on Drawing No. 2 which is included in Attachment B2.

D.1. Infrastructure

a. Site Security Arrangements

Section 4.7.7 of the Environmental Impact Statement (EIS), which accompanies the application, describes the security arrangements.

b. Design For Site Roads

Road design and layout are shown on Drawing 0513906 and 0513907 in the EIS. The proposed construction details for the internal haul roads will comprise a 300mm capping layer overlain by 150mm Type 1 sub base (Clause 804 of the Specifications for Roadworks) followed by 275mm heavy duty macadam and then 45mm rolled asphalt.

c. Hardstanding Areas

Section 4.9 of the EIS describes the hardstanding arrangements.

d. Weighbridge

A weighbridge is located in the centre of the site near the site offices. All vehicles will enter and exit the facility via the weighbridge.

e. Wheel Cleaning

The location of the proposed wheel cleaning facility is shown on Drawing No. 2 and is close to the site weighbridge.

f. Laboratory Facilities

It is not proposed to provide laboratory facilities at the site.

g. Fuel Storage

Oil and fuel storage arrangements are described in Section 4.7.5 of the EIS.

h. Waste Quarantine Areas

Sections 4.8.3 and 4.9.2.1 of the EIS describes the waste quarantine arrangements. In response to requests from the planning authority following the submission of the planning application it is proposed to install a paved waste inspection and quarantine area. The location of the proposed inspection/drainage area and the construction details are shown on Drawing No. 3.

i. Waste Inspection

If following the normal waste acceptance procedures described in Section 4.8.3 of the EIS, it is not possible to ascertain the nature of a waste load delivered to the site it will be directed to the inspection and quarantine area, where it will be off loaded and inspected. The inspection and quarantine area will be paved and provided with a surface water drainage system to collect run-off.

j. Traffic Control

Section 12 of the EIS describes the site access arrangements.

k. All Services

Section 4.6 of the EIS describes the site services.

l. Sewerage and Surface Water Infrastructure

Sections 4.6, 4.7.4, 4.9.3 and 7 of the EIS describe the sewage and surface water arrangements.

m. Plant Sheds, Garages and Equipment Compound

Section 4.6 of the EIS which accompanies the application describes the building arrangements.

n. Site Accommodation

It is not proposed to alter the existing offices and toilet facilities.

o. Fire Control System

The waste materials which it is proposed to accept at the facility are inert C&D and are not flammable. Fire risk is limited to individual plant items. Fire responses related specifically to environmental impacts will be incorporated into the Emergency Response Plan which will be developed prior to waste acceptance.

p. Civic Amenities

It is not proposed to provide any civic amenity facilities on-site.

q. Details of Composting Infrastructure

Sections 3.4.4 and 4.9 of the EIS describe the composting infrastructure.

r. Description of Incineration infrastructure (if applicable)

There will be no incineration infrastructure at this facility.

s. Details of any other infrastructure proposed

All site infrastructure is described in Section 4 of the EIS.

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ATTACHMENT D.2

Facility Operation

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Attachment D.2 Facility Operation

Operational History

Section 1.1 of the EIS describes the site history.

Proposed Operations

Sections 4.8 and 4.9 of the EIS describes the proposed operations and waste handling.

Process Control

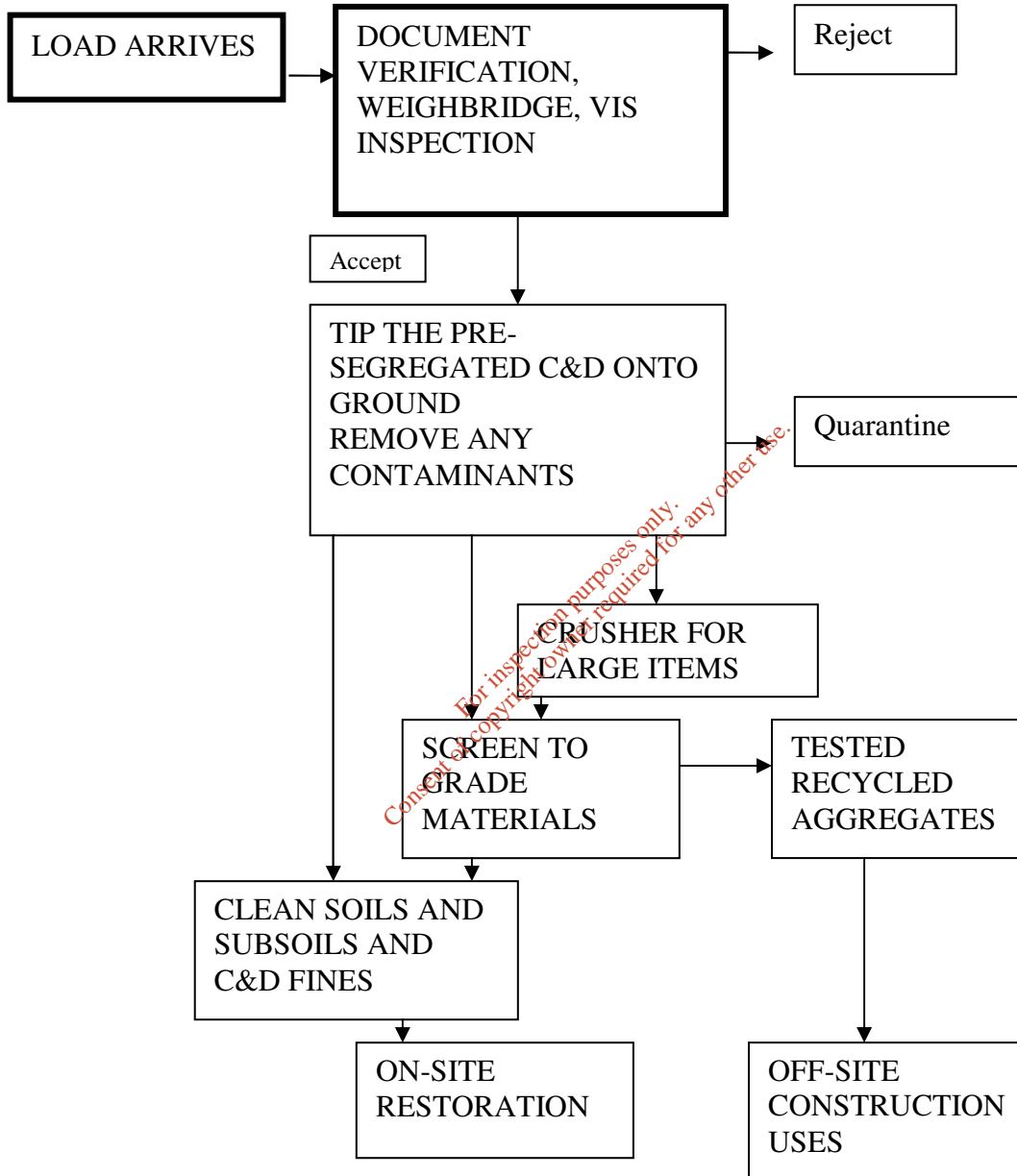
A process flow diagram of the waste operations is included with this attachment.

Emissions

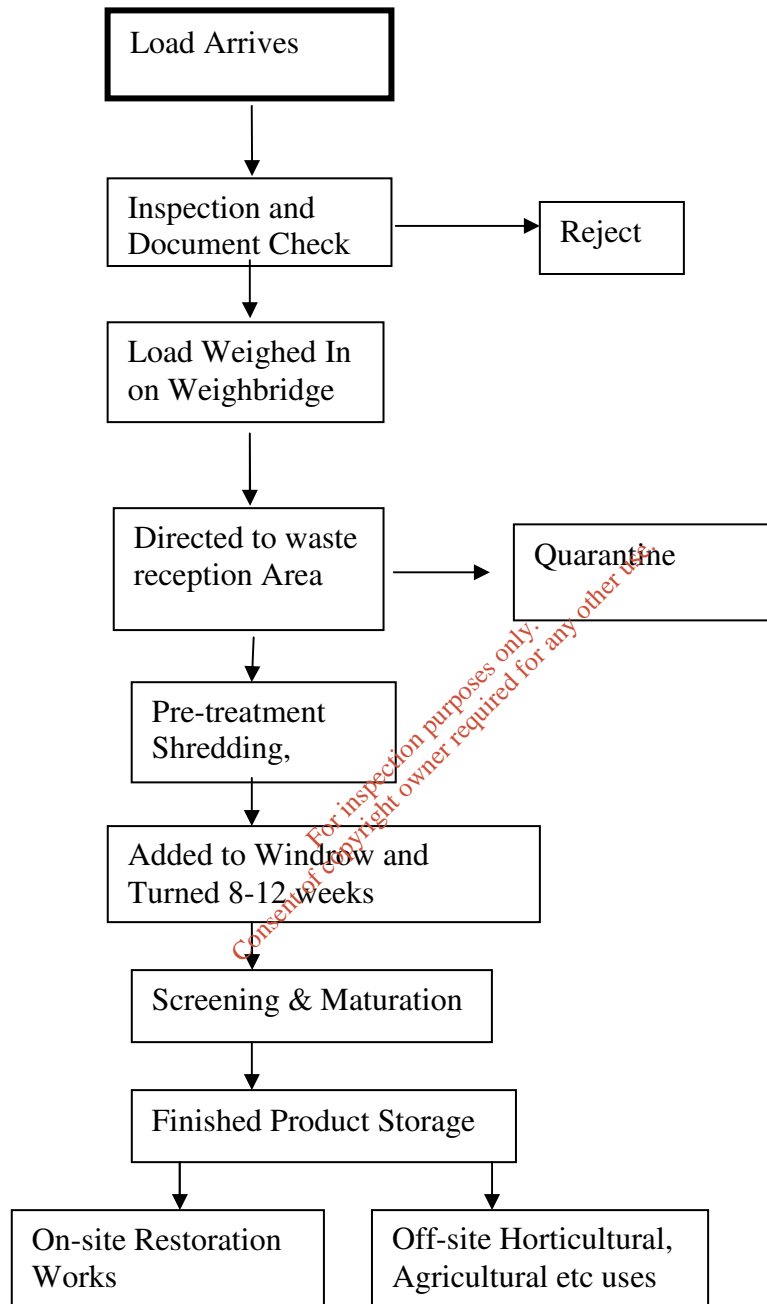
The potential emissions associated with facility operations include, surface water, waste water, noise, bioaerosols and dust. Further information on emissions is presented in Sections 7, 9 and 10 of the EIS.

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General Process Flow Diagram – C&D



Green Waste Composting Flow Diagram



ATTACHMENT E

Emissions

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ATTACHMENT E.1

Emissions to Atmosphere

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Attachment E.1 Emissions to Atmosphere

The potential emissions to the atmosphere from the facility include dust, traffic emissions, odour and bioaerosols. Section 9 of the EIS describes potential emissions to the atmosphere from the facility.

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ATTACHMENT E.2

Emissions to Surface Water

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Attachment E.2 Emissions to Surface Water

The emissions to the surface water drainage system are described in Section 4.9 and 7 of the EIS.

Since the EIS was prepared the applicant was granted a Trade Effluent Discharge Licence (W.P. (W) 13/08) to discharge water used in the on-site sand and gravel washing plant to the stream that runs adjacent to the eastern boundary. A copy of the Licence is included with this attachment.

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CORK COUNTY COUNCIL

LOCAL GOVERNMENT (WATER POLLUTION) ACTS 1977 AND 1990

Licence to discharge Trade Effluent or Sewage Effluent to Waters

Reference **TO / O'Regan's Quarry Products Ltd**
No. In **The Mills Commercial Park**
WP(W)13/08 **Crookstown**
County Cork

The Council of the County of Cork, in exercise of the powers conferred on it by the Local Government (Water Pollution) Acts, 1977 and 1990, as amended, hereby **GRANTS** a Licence, Reference Number WP(W)13/08

To **O'Regan's Quarry Products Ltd**
The Mills Commercial Park
Crookstown
County Cork

To Discharge **Discharge of trade effluent resulting from the operation of a sand & gravel quarry**

To (River) **Groundwaters at Tulligmore**

Located at **Tulligmore, Dripsey, County Cork**

subject to the Conditions set out in the schedule attached hereto. It should be noted that a person shall not be entitled solely by reason of a licence to make, cause or permit a discharge to a sewer.

**ENVIRONMENT
DEPARTMENT,
ROOM GF22,
CORK COUNTY COUNCIL,
INNISCARRA,
CO CORK.**

Signed on behalf of the said Council,



STAFF OFFICER

Dated this 11th day of NOVEMBER 2008

NOTE:

An appeal against a decision made by a Sanitary Authority under Section 16 and Section 17 of the Act of 1977, may be made to An Bord Pleanala under Section 20 of the Act, as inserted by Section 15 of the Local Government (Water Pollution) (Amendment) Act, 1990 within one month of the date of the Licence.

Appeals should be addressed to THE SECRETARY, AN BORD PLEANALA, 64 Marlborough Street, Dublin 1, and will be invalid unless accompanied by an additional fee of €126.00.

A request for an oral hearing shall be accompanied by an additional fee of €63.00.

A party to an appeal shall give to An Bord Pleanala any document, information or evidence in his possession or procurement, which An Bord Pleanala consider necessary for the purpose of determining the appeal.



CORK COUNTY COUNCIL
Environment Directorate,
Inniscarra,
Co. Cork

Local Government Water Pollution Act 1977 to 2007

Licence under Section 4

W.P. (W) 13/08

O'Regan's Quarry Products Ltd.
The Mills Commercial Park,
Crookstown,
Co. Cork

(Quarry at Tulligmore, Dripsey)

Schedule

Wastewater Discharges shall take place only as specified in the licence application **WP (W) 13/08** as modified and/or controlled by this licence and subject to the requirements of law. Any changes in the nature or quantity of any emission shall require the licensee to notify the Licensing Authority and in the case of any material change for the licensee to request a review or obtain a new licence as may be determined by the Licensing Authority prior to any such change being made. The Licensing Authority shall interpret whether any change is material or not.

This licence supersedes all previous licenses and correspondence issued in respect of the facility under the terms of the Local Government Water Pollution Acts 1977 to 2007.

In the event of the licence being transferred to another party or company the applicant shall notify the Licensing Authority of this fact and shall also provide the details of the new licence holder prior to the transfer of the licence

1 WASTEWATER MANAGEMENT

- 1.1 The Licensee shall employ the best available techniques in the avoidance, minimisation, treatment and disposal of wastewaters produced on site
- 1.2 Employees with responsibilities in the wastewaters control and treatment shall receive training adequate to enable them to execute their tasks in relation to pollution control. These records shall be retained on site for auditing by the Licensing Authority.
- 1.3 This licence does not permit the discharge of compounds as listed in Appendix 1 of Water Quality (Dangerous Substances Regulations) S.I. 12,2001

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2 CONTAMINATED SURFACE WATERS

- 2.1 All non domestic contaminated wastewaters including surface water runoff and ground water infiltration, arising from the operation of O'Regan's Quarry Products Ltd., Tulligmore, Dripsey, Co. Cork shall be collected and discharged via settlement tanks to surface waters as indicated on drawing and maps which accompanied this licence application. There shall be no other discharges to surface waters.

Foul wastewater shall not be discharged via this system

- 2.2 The sampling point shall be the discharge point into the receiving waters. (As per Drawing No. 0813905-Site Layout Plan Attachment 1 which accompanied the application)

Grab samples taken of the discharge at this point shall be tested by the licensee for the parameters indicated in the following table and no such sample taken at the point of sampling shall exceed the following condition limits from the date of issue of this licence:

1.	pH	6.0– 8.5
2.	Suspended Solids	25 mg L ⁻¹
3.	Mineral Oils	3 mg L ⁻¹
4.	Total Heavy metals	1 mg L ⁻¹

Grab samples shall be taken monthly and analyzed for the parameters above for the first 12 months from date of issue of the licence. If the first 12 months demonstrate 100% compliance, the frequency of monitoring can be reduced to quarterly thereafter. The Licensing Authority reserves the right to alter the frequency of testing.

- 2.3 A continuous recording flow meter shall be installed on the discharge pipe to the receiving waters. The licensee shall ensure the flow meter is in operation at all times. Cork County Council reserves the right to reduce pumping rates/capacity in the interest of environmental protection and/or to minimize flooding.

The wastewater flow shall not exceed the lesser of 2000 m³ /day or 75m³ /hr and shall be baffled prior to discharge to the receiving waters.

There shall be no discharge between the months of May to September inclusive.

- 2.4 The receiving water shall be monitored at one location downstream and one location upstream of the discharge. Locations to be agreed in advance with the licensing Authority. Suspended solids, mineral oils and total heavy metals at these locations shall be analyzed quarterly. Results to be included in quarterly effluent monitoring returns to Cork County Council.
- 2.5 Annual macroinvertebrate sampling shall be carried by a suitably qualified person. Two sites of similar substrate shall be agreed with the Licensing Authority, one upstream and one downstream. Sampling shall be in accordance with EPA guidelines. Results shall be included in the Annual Environment Report.
- 2.6 All test methods used by the Licensee for the monitoring of the nature of the discharge shall be agreed with the Licensing Authority. All laboratory equipment used for wastewaters monitoring shall be calibrated in accordance with the manufacturers' recommendations and records of such calibrations shall be held by the Licensee for inspection by the Licensing Authority on request.
- 2.7 The licensee shall carry out and document a visual inspection of the discharge point weekly, and any abnormalities in the receiving waters shall be noted. If it appears that abnormalities may be occurring as a result of the Licensee's discharges, then the Licensee shall cease the discharge and immediately notify the Licensing Authority and initiate an investigation into the possible cause of the abnormalities.

- 2.8 The licensee shall conduct a biennial assessment, by a suitably person, of the bank side erosion status through changes in channel wet and dry width, scouring etc. at the point of discharge, upstream and 50m d/s.
Mitigation measures shall be agreed in conjunction with the Licensing Authority where the discharge is found to be impacting negatively on the bank side.
This report shall be forwarded to the Licensing Authority within 4 weeks of completion.
- 2.9 Settlement ponds shall be inspected weekly for evidence of preferential flow paths.

3 GROUNDWATER

- 3.1 The Licensee shall on request of the Licensing Authority implement, a programme of groundwater monitoring agreed in advance with the Licensing Authority. This monitoring shall include the monitoring of a minimum of three wells, one of which shall be located above and one below the site's hydraulic gradient. The location of the wells are to be agreed with the Licensing Authority.

The programme shall include the monitoring of each well for the following parameters: conductivity, pH, Total Organic Carbon, heavy metals, hydrocarbons and mineral oils and such other parameters as may be indicated by the Licensing Authority on a frequency decided by the Licensing Authority. The Licensing Authority reserves the right to alter the frequency of testing.

Note: This monitoring is irrespective of any groundwater monitoring requirements as per Planning Permission or monitoring required under Quarry Registration Scheme.

4 STORAGE FACILITIES

- 4.1 All plant fueling and maintenance activities shall be performed on an impermeable concrete apron draining to a Class 1 hydrocarbon interceptor prior to discharging to the surface water collection system. Spill trays shall be used where this is not reasonably possible.
- 4.2 All fuels, chemicals, oils and lubricating fluids storage tanks shall be rendered impervious to the materials stored therein. In addition, storage tank areas shall be bunded, either locally or remotely, to a volume of 110% of the largest tank within each individual bunded area. All valves to be contained within the bund. The bunded area is to be fitted with a locking penstock valve which shall only open to discharge storm water to the interceptor. The licensee shall ensure that this valve is locked at all times.
- 4.3 The integrity and water tightness of all the bunded structures and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated by the licensee to the satisfaction of the Licensing Authority. The results of these tests shall be certified by a Chartered Engineer.

This work must be completed by 30th September 2009 with a report submitted to the Licensing Authority.

5 SOLID WASTES

- 5.1 All wastes shall be recycled, recovered, or, reused in so far as is practical. All waste management options utilized shall be agreed in advance with the Licensing Authority. The volume of all wastes generated on site shall be recorded by the licensee. All such wastes shall be detailed as to source, route and type of recycling or disposal and classification under the European Waste Catalogue. This information shall be included in the annual summary report which must be returned to the Licensing Authority under the terms of this licence.

6 MONITORING

- 6.1 The licensee shall grant immediate and unhindered access to the site and any portion of the pollution abatement equipment to any authorized personnel representing any body having statutory responsibility for water pollution control, at all times to carry out such inspections, monitoring and investigations as the body deems necessary.

The Licensing Authority reserve the right to carry out monitoring works on the Licensee's site in relation to the nature or quantity of discharges from the licensee's premises. The Licensing Authority may install such equipment as may be necessary to collect this information at the Licensee's premises. The cost of this work will be borne by the Licensee.

- 6.2 The licensee shall keep records of all monitoring carried out and shall retain such records for a minimum period of five years. These records shall be available for inspection by authorized personnel representing any statutory body involved in water pollution at all reasonable times.

The licensee shall submit to the Licensing Authority at quarterly intervals the results of all monitoring relating to the previous quarter, together with any other records relating to pollution control which may be required by the Licensing Authority. The format of these results shall be in accordance with the Licensing Authority template which will be provided to the licensee.

- 6.3 Any non-compliance with the terms of the licence shall be highlighted and the reason why this occurred shall be stated. The measures taken to ensure non-recurrence of the non-compliance shall also be outlined. The percentage compliance with licence values for each parameter shall also be indicated.

- 6.4 Before January 31st of each calendar year, the Licensee shall submit a summary report of all monitoring carried out in the previous year. This report shall evaluate the operation of the facilities available on site to treat the wastewater produced in the light of the results achieved in the previous year.

- 6.5 All submitted reports shall be signed by the Licensee's plant manager or other senior officer designated by company.

7 RESPONSIBLE PERSON

- 7.1 The licensee shall ensure that a person or persons is/are available at all times to give relevant information on emissions to the Licensing Authority. The licensee shall identify to the Licensing Authority each such person.

8 POLLUTION ABATEMENT EQUIPMENT

- 8.1 The Licensee shall initiate an approved maintenance programme for all such pollution abatement equipment in use in the treatment process or in pollution control. This includes grease traps, interceptors, wash down and silt trap separators.

These units shall be inspected at least weekly and cleaned at a minimum on a monthly basis. A register shall be retained on site of all maintenance work and inspections carried out on such units and this information shall be made available to the Licensing Authority either on request or available for inspection on site.

- 8.2 Licensed contractors shall be used for the removal of all waste materials from interceptors to licensed facilities.

9 CONTRIBUTIONS

9.1 The licensee shall pay to the Licensing Authority such annual contributions towards the cost of monitoring the discharge as the Licensing Authority considers necessary for the performance of its duties under this Act as follows:

- a) Not later than March 31st, 2009 the licensee shall pay to the Licensing Authority a contribution of not less than (€ 1350).
- b) In subsequent years the licensee shall pay to the Licensing Authority an annual amount of not less than (€1350) updated in accordance with the Consumer Price Index from the date of the grant of this licence to the value pertaining at the time of payment of each annual contribution.
- (b) Notwithstanding the foregoing, the rate of contribution each year shall take account of the actual costs of monitoring as incurred by the Licensing Authority in the previous year and as estimated for the next year.

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ATTACHMENT E.3

Emissions to Sewers

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Attachment E.3 Emissions to Sewer

The on-site sanitary facilities are described in Section 4.6 of the EIS. The existing facilities are deemed to be adequate for current and future needs and it is not proposed to install additional welfare/sanitary facilities. The facilities comprise two toilets and a wash hand basin. These are located adjacent to the site canteen, which also has a wash hand basin.

There is a septic tank and percolation area adjacent to the site offices which serve the existing welfare facilities. The system was installed approximately 20 years ago and construction details are not available, however there have been no reported difficulties with the system. The planning permission requires the provision of a new on-site wastewater treatment system and this will be provided.

Section 4.9.3 and 4.9.4 of the EIS describe the proposed runoff and leachate infrastructure for the Greenwaste composting area.

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ATTACHMENT E.4

Emissions to Groundwater

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Attachment E.4 Emissions to Groundwater

Section 6 of the EIS describes the potential emissions to groundwater from proposed activities. During the planning process the County Council requested a further assessment of the ambient hydrogeological conditions at the site and the potential impact of the facility on groundwater.

The hydrogeological assessment report is included in this attachment and was based on a desk study and the findings of a site investigation programme that included the installation of three groundwater monitoring wells MW-2, MW-3 and MW-4 at the south western, northern and north-eastern perimeter of the site.

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HYDROGEOLOGICAL ASSESSMENT
FOR A QUARRY AT TULLIGMORE
DRIPSEY
COUNTY CORK

Prepared For: -

O' Regan's Quarry Products Limited,
The Mills Commercial Park,
Crookstown,
Co. Cork.

Prepared By: -

O' Callaghan Moran & Associates,
Granary House,
Rutland Street,
Cork.

15th May 2007

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APPENDICES

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1. INTRODUCTION

1.1 Introduction

O' Regan's Quarry Products Limited (O'Regans Ltd), the quarry operator, submitted an application for planning permission in October 2006 to Cork Country Council for the continued operation of its sand and gravel quarry at Tulligmore, Dripsey County Cork. The application was required under Section 261 of the Planning & Development Act 2000, which deals with the regulation of quarries that started before October 1964.

An Environmental Impact Statement (EIS) was submitted with the planning application. It described the proposal to continue quarrying and reinstatement works, and to start new and complementary construction and demolition waste recycling and green waste composting. On 1st December 2006 the Council requested further information in relation to the application.

This Report describes the local and regional geological and hydrogeological conditions and assesses the impacts of the current and proposed activities. The assessment is based on the information included in the Environmental Impact Statement (EIS) submitted with the planning application, and the findings of a subsequent groundwater level monitoring programme completed in April 2007, which included the installation of three groundwater monitoring wells, MW-2, MW-3 and MW-4 installed at the south western, northern and north-eastern perimeter of the site.

1.2 Methodology

The desk study completed during the preparation of the EIS included a review of information on soil and subsoil permeability, bedrock type, aquifer classification and vulnerability and groundwater well locations from databases maintained by the Geological Survey of Ireland (GSI), Cork County Council and the Environmental Protection Agency and the findings of site investigations carried out in 1996 and 2004. Groundwater level and flow direction were established by monitoring in the on-site production well and three new monitoring wells installed at the site in April 2007.

1.3 Facility Overview

The site encompasses 32.2 ha (79.5 acres). The entire area has been quarried, with excavations extending up to the site boundaries. There are exposed sand and gravel faces along the northern, western, southern and south eastern boundaries. There are stock piles of subsoils and unsuitable granular material won on-site and former and operational settlement ponds in the western and eastern part of the site. The central and northern portions have been graded to a generally uniform level.

Sand and gravel extraction is currently on-going in the southern area. Aggregates are not excavated below the water table. The aggregates are washed and screened in the on-site screening plant, which is located in the south central area. The gravels are stockpiled on-site pending removal using heavy goods vehicles to point of sale. Boulders, which are occasionally encountered during the extraction works, are crushed on-site using a mobile crusher and screened using a mobile screener.

Water used in the screening plant is obtained from a sump excavated in the south western part of the site. The washwater is pumped from the screening plant to settlement ponds in the east of the site of the site, where solid materials settle out. The clear water from the ponds is channelled back to the sump.

It is proposed to extract the viable reserves from areas of the site that have already been worked. The continued operation will not involve either excavation in previously undisturbed area or excavation below the water table. It is not envisaged that there will be any significant change to current quarrying methods. It is proposed to reinstated the worked out areas using imported clean subsoils, inert C&D materials and topsoil conditioned with compost produced in the proposed on site green waste composting facility. It is also proposed to develop a complimentary on-site C&D processing facility.

2. EXISTING ENVIRONMENT

2.1 Existing Environment

2.1.1 Soils

The topsoil and subsoils have been extracted across the entire site and all topsoils have been removed. The remaining *in-situ* subsoils are fluvio-glacial in origin and consist of a mixture of silts, sandy gravels and boulder clay. The 1996 site investigation established that, at that time, the subsoils thickness across the site ranged from 9 - 17 m above the bedrock. The monitoring wells installed in 2007 extended to between 12 and 13 m below ground level and did not encounter bedrock.

The 1996 investigation proved a subsoils thickness of at least 7 m in the central and northern area, where there is a layer of sandy silt, up to 6 m thick, overlying a zone of sands and gravels. The monitoring wells installed in 2007 confirmed the presence of a layer of sandy silt ranging from 5 to 8m in thickness in the northern area of the site. Cross-sections through the central and northern area are shown on Figures in Appendix A. The on-going extraction in the south of the site has revealed that the sands and gravels extend to more than 9 m below ground level.

2.1.2 Bedrock

The GSI Bedrock Map Sheet 25 indicates the bedrock locally comprises Devonian purple mudstone and sandstone belonging to the Ballytrasna Formation. The 1996 site investigation data established the presence of a red, brown, weathered sandstone beneath the site.

2.1.3 Hydrogeology

The sands and gravels beneath the site are water bearing. In the 1996 investigation trial pits in the central and northern area, where a layer of sandy silts are present near the ground surface, encountered water at between 1.5 and 7 m below ground level. The water strikes at depth (>5 m) in underlying the sands and gravels quickly rose pits to approximately 3 m below ground level, indicating that the overlying sandy/silts were acting as a confining layer.

Three groundwater monitoring wells (MW-2, MW-3 and MW-4) were installed at the site in May 2007. The wells are located at the south western, northern and north-eastern site boundaries, as shown on Figure 2.1. The borehole logs are included in Appendix B.

At MW-2 and MW-3 in the north of the site a layer of sandy silt ranging from 5.5 to 8m was encountered. In MW-2 a layer of gravel was encountered at 8m below ground with a water strike at ca 10m below ground level. The water level quickly rose to ca 1.5 m below ground level, indicating confined conditions. In MW-3 a groundwater inflow was noted in a layer of sand at approximately 10.5 m below ground level. MW-4 encountered layers of alternating silts, sands and gravels overlying a water bearing layer of gravels at 10m below ground level.

A tributary of the Dripsey flows from north to south along part of the eastern site boundary. The bed of the stream is at a higher elevation (ca. 126 m OD) than the base of the excavated area to the west (ca. 124 m OD), which indicates that the bed is underlain by low permeability soils (probably sandy silts).

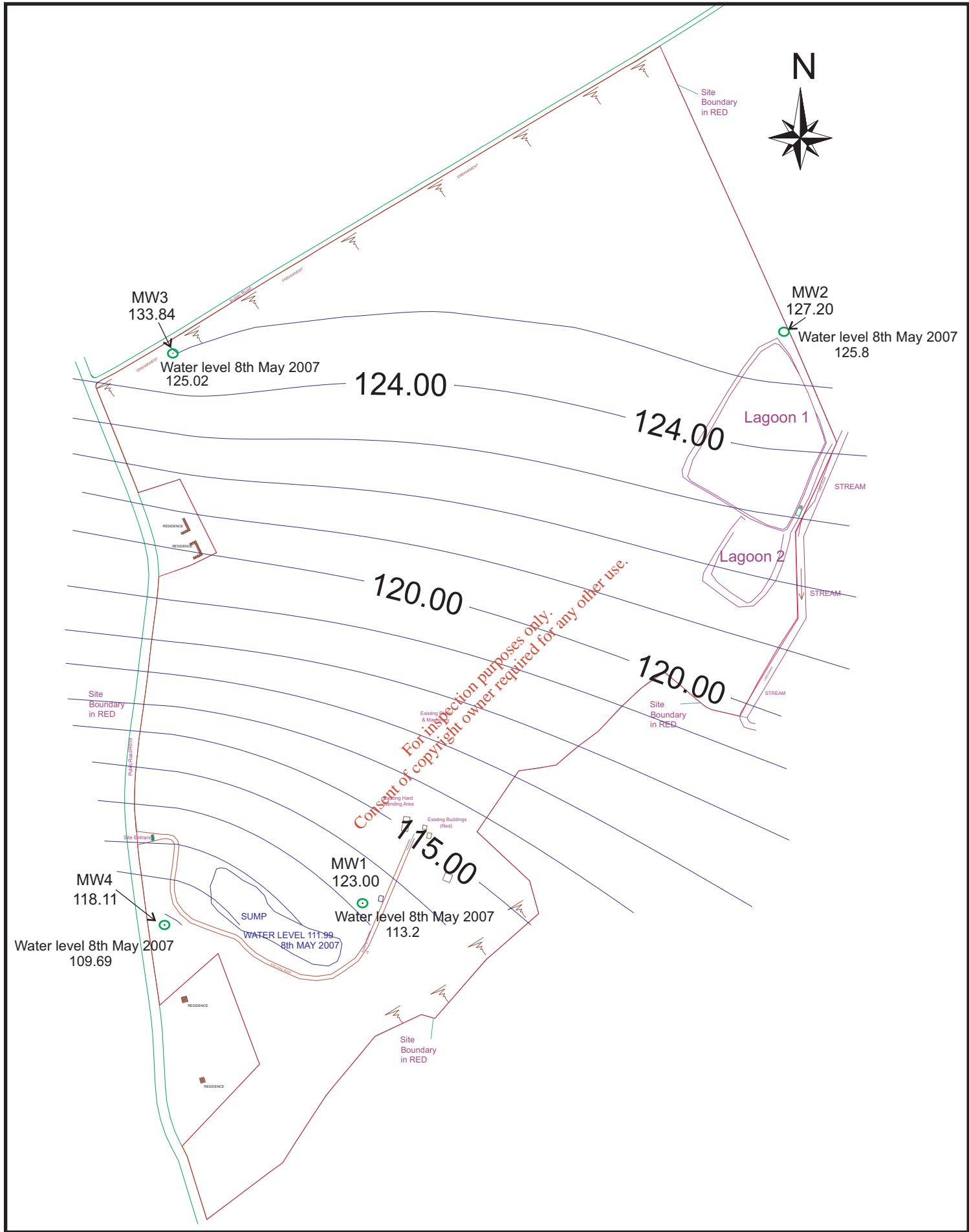
Incident rainfall in the northern and central parts of the site, which are underlain by the sandy silts flows via manmade drainage channels to a lagoon in the southern part of the site. Rainfall on other areas, where the layer of sandy silts is absent, infiltrates to ground and recharges the local groundwater system.


The recently installed wells were surveyed to Ordnance Datum (OD) and groundwater levels measured to establish the direction of groundwater flow. Based on the topography groundwater movement was expected to be from north to south towards the River Dripsey, and probably being influenced by the on-site abstraction for use in the washing plant. The levels recorded in the monitoring wells and the on-site production well confirmed that the direction of flow in the sands and gravels is from northwest to south west, as shown on Figure No 2.1.

2.1.3.1 Aquifer Classification

There is no site specific data (e.g. borehole logs) on the hydrogeological characteristics of the bedrock aquifer beneath the site. The GSI indicates it is a locally important (**LI**) aquifer that is productive in local zones. There is no mains supply in the area and it appears that all of the houses in the vicinity of the site have their own individual wells. An on-site production well was used to provide water to the site offices and welfare facilities.

The data on wells in the vicinity of the site, obtained from the GSI, indicates that the wells are located in the bedrock aquifer. The on-site production well, which is located in the southern part of the site is in the bedrock and is used only to supply the canteen and welfare facilities.



 <p>O' Callaghan Moran & Associates. Granary House, Rutland Street, Cork Ireland. Tel. (021) 4321521 Fax. (021) 4321522 email : info@ocallaghanmoran.com</p>	CLIENT	O'Regan's	FIG. No	
	TITLE	Groundwater Flow Direction	Details	2.1
<p>This drawing is the property of O'Callaghan Moran & Associates and shall not be used, reproduced or disclosed to anyone without the prior written permission of O'Callaghan Moran & Associates and shall be returned upon request.</p>			O.S. Licence Agreement Number AR 0038707	Scale
			Ordnance Survey Ireland. Government of Ireland.	Rev.
				NTS
				A

It is considered that the sands and gravels in the southern part of the site may be in continuity with sand and gravel deposits outside the site boundary and, as indicated by GSI, provide additional storage capacity to the underlying bedrock aquifer.

2.1.3.2 Vulnerability

Vulnerability is defined by the GSI as the intrinsic geological and hydrogeological characteristics that determine the ease with which groundwater may be contaminated by human activities. The GSI uses four groundwater vulnerability categories - Extreme, High, Moderate and Low - in the assessment of risk to groundwater.

In the central and northern area the silts overlying the gravels are likely to have a moderate to poor permeability (between 10^{-6} and 10^{-8} m/s) and control the vulnerability rating. A thickness of 3 to 5 m of moderate to low permeability subsoil indicates a High vulnerability rating.

In the southern area the gravels are considered to provide additional storage capacity to the underlying bedrock. The vulnerability is defined by the depth to the water table from surface. The available information indicates that the gravel aquifer in this area has a High vulnerability rating.

2.2 Groundwater Quality

OCM collected a water sample from the on-site well, which is adjacent to the washing and screening plant. The sample was submitted to an accredited laboratory for analyses, which included pH, electrical conductivity, alkalinity, hardness, ammonia, chloride, total organic carbon, nitrate, volatile organic compounds, petroleum hydrocarbons, metals and faecal and total coliforms.

The laboratory test report is included in Appendix C and the results are summarised in Table 2.1. The table includes only those parameters that were detected and, for comparative purposes, the limits set in the European Communities (Drinking Water) Regulations 2000. The results indicate that the water is generally of good quality. No faecal coliforms but a small amount of total coliforms were detected in the well. The small amount of coliforms can be dealt with by disinfecting the well. Details on the disinfecting methodology are included in Appendix C.

Table 2.1 Groundwater Test Results

Parameter	Units	MW-1	DWS*
pH	pH units	7.72	6 – 9
Dissolved Oxygen	%	4.6	-
Conductivity	mS/cm	234	1000
Chloride	mg/l	18	250
Ammonia	mg/l	<0.2	0.3
Nitrate	mg/l	17.3	50
Total Oxidise Nitrogen	mg/l	4	-
Sulphate	mg/l	13	250
OrthoPhosphate	mg/l	0.1	0.03
Calcium	mg/l	284	200
Magnesium	mg/l	4.3	50
Potassium	mg/l	2.4	5
Sodium		9	200-
Total Organic Carbon	mg/l	2	-
Total Hardness	mg/l	89	200
Alkalinity	mg/l	180	-
Aluminium	ug/l	236	200
Chromium	ug/l	10	50
Copper	ug/l	16	30
Iron	ug/l	60	200
Manganese	ug/l	1	50
Nickel	ug/l	3	20
Zinc	ug/l	20	100
Faecal Coliforms	cfu/100ml	0	0
Total Coliforms	cfu/100ml	34	0

- No Abnormal Change

*EPA-Drinking Water Standards

3. IMPACT ASSESSMENT

3.1 Groundwater Yields

The occupants of dwellings to the south west (2 No.) and the north west of the site (1 No.) have expressed concerns that the continued operation of the quarry will impact on the yield and quality of the groundwater in their wells. The available information indicates that these wells are located in the bedrock. It is understood that the concerns relate to possible future impacts. The dwellings to the south west are approximately 80 m downgradient from the sump used to abstract water for the washing plant and the dwelling to the north east is approximately 600 m from the sump.

3.2 Dewatering

It is not proposed to extract sands and gravels from below the water table and therefore future dewatering of the working areas will not be required. It is proposed to continue washing at approximately the same rate as present and no significant increase in water usage is envisaged.

The current pumping rate to the washing plant is approximately 113 m³/hour (25,000 gallons/hour). The plant operates for approximately 13 hours a day. The wash water is pumped to settling ponds in the east of the site and the overflow is channelled back to the sump. Rainfall from the northern areas of the site, which are underlain by low permeability silty sands, also flows to the sump.

The current pumping rate maintains a drawdown of approximately 3 m in the sump. It is understood that the levels recover to approximately 0.5 m below the original standing level within 24 hours of pumping ceasing. Given the recirculation of the water from the washing plant to the sump via the settling lagoons, and the inflow of surface run-off from the northern part of the site it is considered that sump is acting as a reservoir collecting surface water and some of the groundwater locally in the sand and gravels. For this reason it was considered in the EIS that the pumping of this reservoir does not result in the abstraction of large amounts of groundwater.

3.3 Groundwater Level Monitoring

Following the Council's request for further information on the site hydrogeological characteristics three groundwater level monitoring wells were installed at the site, as described in Section 2.1.3 above. The objective was to establish the impact of current activities on the water table both within and outside the site boundaries and to assist in the assessment of possible future impacts.

MW-4 was located at the south-western site boundary and within 20 m of the boundary with the nearest occupied dwelling. MW-2 was located at the north-eastern site boundary within 5 m of the neighbouring property. The third well (MW-3) was located on the northern site boundary.

Pumping from the sump in the south western part of the site is the only current and future site activity with the potential to impact on yields in the off-site wells. The pumping results in a drawdown in water levels, which reportedly quickly recovers following the cessation of pumping.

In order to establish the impact that the pumping has on groundwater levels in the sands and gravels groundwater level measurements were carried out in the monitoring wells. The monitoring was conducted on Tuesday 8th May 2007 following a three day shut down over the Bank Holiday when the pumping had not been carried out for a minimum of 64 hours. This break would have allowed groundwater levels to recover to natural levels.

Groundwater levels were recorded in the three new wells and the on-site production wells initially at hourly intervals between 8 and 11 am. During this time water was being pumped from the sump to the screening plant. There was no measurable drop in levels over the 4 hour period. . A final round of level monitoring was carried out at 4.30pm and confirmed that there was no change in water levels.

The monitoring indicates that the pumping is not having any measurable impact on levels in the monitoring wells and confirms the conclusions drawn in the EIS that the current activities are not impacting on the wells in the neighbouring properties.

3.4 Groundwater Quality

The monitoring of the on-site well, which is located within 100 m of the current working area, indicates that the water is of good quality and that there is no evidence that current site operations are impacting groundwater quality.

3.5 Impact Assessment

3.5.1 Supply

There is no evidence that current activities have affected either the yields or water quality in the wells supplying the dwellings nearest to the working area. The current working area is the closest the excavations will ever be to the residences to the south west of the site. To eliminate any future risk of impacts excavations will not be carried out to the south west of the current active area. As future extraction works will move northwards and there will be no significant change in either the working methodologies or dewatering rates, it is considered that the future works will not result in any impacts on groundwater supplies to the south east of the site.

Although the extraction will move northwards the active area will be a minimum of 400 m from the residence to the north east of the site. Given the distance from the working area and the fact that this location is up hydraulic gradient of the site and there will be no change to the current abstraction rates, there is no significant risk of impact on either the yield in wells supplying dwellings north of the site.

3.5.2 Quality

There is no evidence that the existing activities have impacted on groundwater quality either within or downgradient of the site. As it is not proposed to significantly alter the existing quarrying activities and it is proposed to carry out site activities in accordance with best practice it is considered that the risk to groundwater quality from normal quarrying activities is low.

The materials processed at the C&D recycling plant will be inert, comprising concrete; bricks tiles; ceramics, soils and stones and tarmacadam. The recycling plant will be located in the north-eastern area of the site, which is underlain by up to 5 m of low permeability silty sands that protect and confine the lower water bearing sands and gravels. The processing and stockpiling will not generate any direct emissions to groundwater. Surface water run-off from the processing and stockpile areas will enter the internal surface water drainage system.

The reinstatement of the northern area of the site will be carried out using natural materials won on-site, imported clean soils and subsoils, processed inert C&D materials that have no market outlet and compost from the proposed on-site compost facility. None of these materials presents a risk to groundwater.

The green waste composting system will generate leachate/contaminated surface water run-off that has the potential to impact on groundwater quality in the event of an uncontrolled release. The composting operation will be located in the north east of the site which is underlain by up to 5 m of low permeability silty sands.

All of the composting activities will be carried out on an impermeable concrete slab. Leachate and contaminated run-off from the slab will be collected and directed to an underground concrete leachate storage tank. The tank will be underlain by up to 2 m of low permeability silty sands. The leachate will be recirculated to the windrows and surplus liquid will be removed off-site for treatment/disposal either at a wastewater treatment plant or by landspreading in accordance with an approved Nutrient Management Plan. In the unlikely event of the uncontrolled release of leachate the confining layer of low permeability silty sands will inhibit the percolation of the leachate to the water table.

3.6 Mitigation Measures

As the bedrock aquifer is an important local groundwater resource, measures to protect groundwater quality and prevent any impact on the resource outside the site boundary have been incorporated into the development plans.

The C&D recycling and green waste composting operations will be located in the north east of the site where the current ground conditions (silty sands) provide protection to the underlying water bearing sands and gravels. The green waste composting will be on an impermeable concrete slab with leachate directed to a leachate storage tank. An external perimeter kerb will be provided around the composting and materials storage areas to prevent the entry of run-off from off-site upgradient areas and to contain contaminated run-off/leachate.

All fuel oil will be stored in bunded above ground tanks. The bunds will have a capacity of 110% of the tank volume and will be water tight. Integrity tests will be carried out on bunds to ensure their water tightness. Spill control kits will be maintained on-site and relevant staff members will be trained in their use.

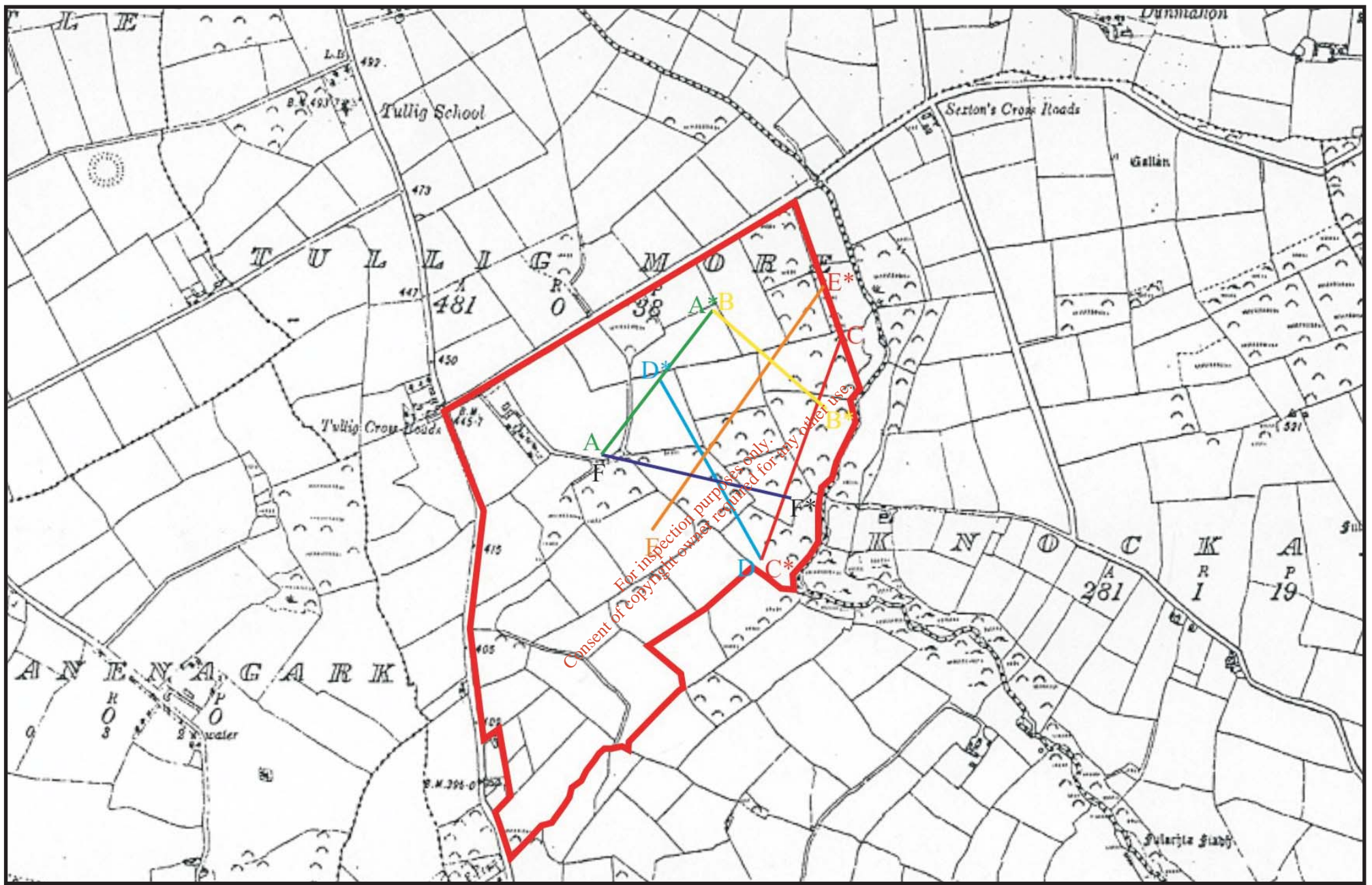
3.7 Monitoring

Annual ground water monitoring will be carried out in the existing groundwater wells. The analysis will include pH, electrical conductivity, dissolved oxygen, Total Organic Carbon, chloride, ammonia, alkalinity and hardness, nitrate, potassium, sodium, sulphate and coliforms.

APPENDIX A

Cross Sections

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 Granary House, Rutland Street,
 Cork Ireland.
 Tel. (021) 4321521 Fax. (021) 4321522
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CLIENT

O'REGANS

Details

FIGURE NUMBER

2.1

TITLE

Section Locations

Scale

Not To Scale

Revision

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APPENDIX B

Well Logs

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BOREHOLE RECORD

CONTRACT: O' Regan's Quarry Products Limited

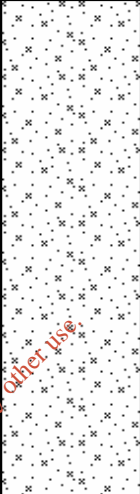
BOREHOLE NO: MW-2

LOCATION: Tulligmore, Dripsey, County Cork

DATE: 12-13/04/2007

GRID REFERENCE:

DRILLING METHOD: Air Rotary Percussion

DESCRIPTION	BOREHOLE DEPTH (m)	SYMBOLIC LOG	SAMPLE TYPE	DEPTH (m)/ Reading (ppm)
Brown sandy Silt Slight groundwater inflow at 3.5mbgl	Metres (m) 1m 2m 3m 4m 5m 6m 7m 8m			
Stiff clay Groundwater inflow at 10mbgl	9m 10m 11m 12m 13m			
Borehole Terminated at 13mbgl	14m 15m 16m			

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Construction Details

50mm Slotted Standpipe: 4.0-13.0mbgl
 Solid Standpipe: 0mbgl - 4.0mbgl
 Gravel filter pack: 1.0-13.0mbgl
 Bentonite: 0-1.0mbgl

BOREHOLE RECORD

CONTRACT: O' Regan's Quarry Products Limited

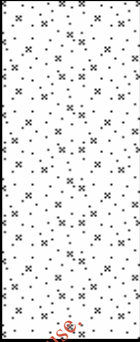
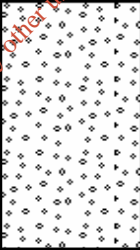
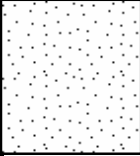
BOREHOLE NO: MW-3

LOCATION: Tulligmore, Dripsey, County Cork

DATE: 13/04/2007

GRID REFERENCE:

DRILLING METHOD: Air Rotary Percussion

DESCRIPTION	BOREHOLE DEPTH (m)	SYMBOLIC LOG	SAMPLE TYPE	DEPTH (m)/ Reading (ppm)
Red brown sandy Silt	Metres (m) 1m 2m 3m 4m 5m			
Red Sandstone Gravels	6m 7m 8m 9m			
Wet brown Sand Groundwater inflow at 10.5mbgl.	10m 11m 12m			
	13m 14m 15m 16m			
Borehole Terminated at 12mbgl				

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Construction Details

- 50mm Slotted Standpipe: 3.0-12.0mbgl
- Solid Standpipe: 0- 3.0mbgl
- Gravel filter pack: 1.0-12.0mbgl
- Bentonite: 0-1.0mbgl

BOREHOLE RECORD

CONTRACT: O' Regan's Quarry Products Limited

BOREHOLE NO: MW-4

LOCATION: Tulligmore, Dripsey, County Cork

DATE: 13-14/04/2007

GRID REFERENCE:

DRILLING METHOD: Air Rotary Percussion

DESCRIPTION	BOREHOLE DEPTH (m)	SYMBOLIC LOG	SAMPLE TYPE	DEPTH (m)/ Reading (ppm)
Red brown sandy Silt	Metres (m) 1m			
Brown Sand	2m			
Red sandstone Gravel	3m			
Red sandstone Gravel	4m			
Sandy Silt	5m			
Sandy Silt	6m			
Sandy Silt	7m			
Sandy Silt	8m			
Sandy Silt	9m			
Sandy Silt	10m			
Red sandstone Gravel	11m			
Groundwater encountered at 10mbgl	12m			
	13m			
	14m			
	15m			
	16m			
Borehole Terminated at 12mbgl				

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Construction Details

50mm Slotted Standpipe: 3.0-12.0mbgl

Solid Standpipe: 0- 3.0mbgl

Gravel filter pack: 1.0-12.0mbgl

Bentonite: 0-1.0mbgl

APPENDIX C

Groundwater Monitoring Results

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O' Callaghan Moran & Assoc.,
Granary House,
Rutland St,
Cork.

LabCheck Report

Report Number: OCM060907

Sample: Water
Your Ref: MW-1
Page: 1 of 1

Date Received: 12-09-06
Date Analysed: 12-09-06
Time analysis commence: 12:20pm

Test Required	Test Details	Method
Microbiological tests for water	Total Coliform <i>E.coli</i>	LCMP5.6 LCMP5.6

Test Results

Sample No.	Total Coliforms cfu/100ml	<i>E. coli</i> cfu/100ml
060907	3.4 X 10 ¹	<1

Note: All results reflect condition at time of testing only.

Signed Jill O'Brien
Jill O'Brien B.Sc
Microbiologist

Date 14/09/06

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Guidelines On How to Disinfect a Water Supply

The following guidelines should be followed when disinfecting a well :

1. Pour @ 1 litre of chloras directly into the well (it is recommended to add the chloras in a diluted form).
2. Care should be taken to avoid splashing chloras on clothes or skin.
3. Turn on taps until the "swimming pool" smell can be detected in the water.
4. Turn off taps and let the chloras remain in the well for 24-36hrs.
5. Do not drink the water during this period.
6. After 24-36hrs turn on taps and gradually run off the chloras. It is important to stagger the water run-off (eg. Run the water for 30-40 mins three times per day).
7. Continue running the water until the smell of chloras has disappeared.
8. The water is now safe to drink.

Note: Chloras can be purchased at most Co-op's. Alternatively, any food grade disinfectant can be used.

ATTACHMENT E.5

Noise Emissions

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Attachment E.5 Noise Emissions

Baseline noise assessment and prediction modelling was carried out to assess the potential impacts of noise associated with the proposed waste activities. The results of this assessment are presented in Section 10 of the EIS.

In the course of processing the planning application the County Council requested that A Noise Management Plan be prepared. A copy of the Plan is included in this attachment.

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DixonBrosnan

environmental consultants

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Project <p style="text-align: center;">Existing Quarry and proposed C&D Recycling and Green Waste Composting facility at Dripsey Noise management plan</p>				
Client <p style="text-align: center;">O'Callaghan Moran</p>				
Project ref	Report no	Client ref	Pages	
05025	05025.4	Michael Watson	12	
DixonBrosnan Shronagreehy Kealkill Bantry Co Cork Tel 086 813 1195 damian@dixonbrosnan.com www.dixonbrosnan.com				
Date	Rev	Status	Prepared by	Issued
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1. Introduction

1.1 DixonBrosnan Environmental Consultants were commissioned by O'Callaghan Moran to prepare a noise management plan in respect of an existing quarry and a proposed waste management facility at Tulligmore, Dripsy, Co. Cork. The plan has been requested by Cork County Council following their assessment of the planning application submitted for the development. The Council has not specified the contents of the noise management plan.

1.2 The proposed development will consist of a non-hazardous waste recycling facility. Waste concrete, bricks, tiles, timber, soil and stone will be imported to the facility and sorted into their respective streams. Larger pieces will be crushed using a crusher currently operated on the site. Green waste will also be managed. The activity will require a waste permit from the local authority.

1.3 With respect to the preparation of the plan, the following steps have been followed:

- A. Relevant noise criteria.
- B. Noise sources onsite.
- C. Predicted impacts.
- D. Mitigation required.
- E. Ongoing review.
- F. Noise management plan (appendix 2).

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2. Relevant noise criteria

2.1 Planning permission has not yet been granted by the local authority for the proposed development, and therefore no noise limits have been specified. There are no national noise limits in force with respect to commercial developments. For the purposes of this plan, it is necessary to refer to noise limits which will most likely be attached to any planning permission granted by the local authority.

2.2 The Environmental Protection Agency document *Guidance note for noise in relation to scheduled activities 2nd edition* (2006) notes that noise levels arising from a development should not exceed 55 dB during daytime hours when measured at a noise sensitive receptor, and 45 dB during night-time hours. Daytime and night-time are defined as 0800-2200 and 2200-0800 hours respectively. These limits are usually applied by the EPA to licensed

activities including waste management facilities. The limits are ultimately drawn from the 1999 World Health Organisation report Guidelines for community noise (eds. Berglund *et al*).

2.3 The 55/45 dB limits are usually stipulated by regulatory authorities when specifying noise conditions with respect to commercial developments. Most noise conditions issued by Cork County Council tend to be based around the 55/45 dB limits. It is therefore reasonable to assume, for the purposes of this plan, that noise limits of 55 and 45 dB will be specified by Cork County Council if planning permission is to be granted.

2.4 Noise conditions issued by most authorities usually include additional criteria relating to the character of emissions. Typically, where the emissions are tonal or impulsive in character, a 5 dB penalty is to be applied. This 'rating' procedure is described in several noise standards, including the three documents most commonly referenced in Ireland:

- A. EPA document *Guidance note for noise in relation to scheduled activities 2nd edition* (2006).
- B. *International Standard ISO 1996 Acoustics: Description and measurement of environmental noise Parts 1-3*.
- C. *British Standard BS 4142:1997 Method for rating industrial noise affecting mixed residential and industrial areas*.

2.5 The application of a 5 dB penalty as described above results in a rated noise level (L_{Ar} , see appendix 1). The penalty is usually applied to the average noise level (the L_{Aeq}) measured over a period of time, usually 15-60 minutes. Measurement intervals of 30 minutes are considered appropriate here. Thus the noise descriptor considered relevant to the proposed development is the rated level measured over 30 minutes ($L_{Ar 30 \text{ min}}$). It is this level which will be compared to specified noise limits.

2.6 From the foregoing, the following noise limits have been assumed to apply to the study site for the purposes of this noise management plan:

- A. Daytime 0800-2200 hours rated noise limit: $L_{Ar 30 \text{ min}}$ 55 dB.
- B. Night-time 2200-0800 hours rated noise limit: $L_{Ar 30 \text{ min}}$ 45 dB.
- C. As specified by the EPA noise guidance document, no tones or impulses are permitted during night-time hours.

3. Noise sources onsite

3.1 Noise emissions will arise chiefly from the use of plant onsite. There will be no emissions from processes, air handling units, etc. Plant required onsite is listed in table 1. The table also presents noise output data obtained from plant suppliers and/or from similar facilities.

Table 1. Onsite plant at proposed waste facility.

Plant	Noise output L _{WA}
Backhoe loader	108 dB
Wood shredder	100 dB
Trommel screen	80 dB
Grab machine	108 dB
Crusher	110 dB
Front end loader	108 dB

3.2 The backhoe loader, shredder, screen and grab will be imported to the site to facilitate the proposed development. The crusher and front end loader will be borrowed when required from the existing quarry facility onsite. Additional plant, including dump trucks, excavators and front end loaders may also be borrowed from the existing quarry as required.

3.3 Noise data provided in respect of the shredder and screen indicate that emissions will not be tonal. While emissions from the loader and grab machines may contain tonal characteristics in the 50-200 Hz frequency range, these will not be of aural significance.

3.4 Noise emissions from the proposed facility will arise during working hours (Monday-Saturday 0600-1900). During these times it is likely that operation of the above plant will vary depending on demand.

4. Predicted impacts

4.1 DixonBrosnan report 05025.3, submitted with the planning application, describes noise levels predicted to arise at surrounding noise sensitive receptors as a result of the current activities onsite and the proposed waste management facility. Three conclusions were made in the report on the basis of the model results:

A. Noise levels predicted to arise directly from the existing quarry and proposed waste management facility will be 40-43 dB. Emissions will arise from the use of a backhoe loader, grab machine, wood shredder and trommel screen. Crushing of C&D rubble will be undertaken using an existing crusher at the quarry operation onsite. Traffic movements associated with the facility will be negligible in the context of movements at the existing quarry.

B. Existing noise levels in the vicinity of the study site range from 45 to 55 dB (L_{Aeq 1hour}) as recorded during August 2006. These levels are higher than levels predicted to arise from the proposed facility. At most locations, existing noise levels are significantly higher than predicted levels, and it follows that emissions will not be audible. At NSL6 (single house 250 northeast of existing quarry boundary) noise emissions from the proposed facility will raise the

existing noise levels by 2 dB to 47 dB. This increase will not be significant. It should be noted that an increase of 3 dB is the smallest increase perceptible to the human ear.

C. It is concluded that noise impacts arising from the proposed development will be negligible. Noise emissions will generally not be audible offsite.

4.2 The model run did not include emissions from the crusher and front end loader listed in table 1. As noted in 3.2, the crusher and loader are already located onsite and used in the existing quarrying operation. Use of the crusher and loader in conjunction with the proposed waste management facility will not result in any changes in their existing noise emission profiles.

5. Mitigation required

5.1 On the basis of noise impacts predicted, no major mitigation measures other than the construction of a perimeter berm around the proposed waste management facility were identified. Due to the important noise screening provided by the proposed berm, the applicant agreed to construct the berm prior to commencement of daily operations at the waste management facility. The attenuation provided by the berm was therefore incorporated into the noise prediction model.

5.2 Several specific measures are recommended with respect to the proposed development. These are discussed below, and form the core of the noise management plan presented in appendix 2. The measures are required to achieve compliance with the likely daytime and night-time noise limits presented in 2.6. The measures are also required to reduce or eliminate potential offsite noise impacts which may arise as a result of unforeseen or short term incidents.

6. Ongoing review

6.1 It is recommended that the noise management plan is reviewed annually in conjunction with an annual noise survey to be undertaken at the site. Any issues requiring attention should be incorporated into the following year's plan.

Appendix 1: Glossary

Note: Not all terms have been used in this report.

Air overpressure	The intensity of air pressure wave caused by blasting. Expressed as dB without any A-weighting ie. linear.																
Ambient	The total noise environment at a location, including all sounds present.																
Amplitude	The parameter which indicates the loudness of a noise measured in decibels.																
A-weighting	The weighting or adjustment applied to sound level recordings to approximate the non-linear frequency response of the human ear. The A-weighting is denoted by the suffix A in the parameters listed below such as L_{Aeq} , L_{A10} , etc.																
Background noise	The A-weighted sound pressure level of the residual noise in decibels exceeded for 90% of a given time interval. The L_{A90} .																
Decibel (dB)	<p>The units of the noise measurement scale. Based on logarithmic scale so cannot be simply added or subtracted. A 3 dB difference is the smallest change perceptible to the human ear. A 10 dB difference is perceived as a doubling or halving of the sound level. Throughout this report noise levels are presented as decibels relative to 2×10^{-5} Pa. Examples of decibel levels are as follows:</p> <table><tr><td>20</td><td>Very quiet room</td><td>100</td><td>Nightclub</td></tr><tr><td>35</td><td>Rural environment at night</td><td>120</td><td>Jet take-off</td></tr><tr><td>65</td><td>Conversation</td><td>140</td><td>Threshold of pain</td></tr><tr><td>80</td><td>Busy pub</td><td></td><td></td></tr></table>	20	Very quiet room	100	Nightclub	35	Rural environment at night	120	Jet take-off	65	Conversation	140	Threshold of pain	80	Busy pub		
20	Very quiet room	100	Nightclub														
35	Rural environment at night	120	Jet take-off														
65	Conversation	140	Threshold of pain														
80	Busy pub																
Frequency	The number of cycles per second of a sound or vibration wave. An example of a low frequency noise is a hum, while a whine represents a higher frequency. The range of human hearing approaches 20-20,000 Hz.																
Hertz (Hz)	The unit of frequency measurement.																
Impulse	A noise which is of short duration, typically less than one second, the sound pressure level of which is significantly higher than the background.																
Interval	The time period t over which noise monitoring is conducted. May be 5-60 minutes, depending on the standard applied. The interval is usually denoted by t as in $L_{Aeq t}$, $L_{A90 t}$, etc.																
$L_{Aeq t}$	The equivalent continuous sound level during a measurement interval, effectively representing the average A-weighted noise level.																
L_{Aeq}	The A-weighted sound pressure level at a particular instant, measured using an impulse time weighting on the sound level meter. May be used in the assessment of impulse noise.																
$L_{An t}$	The A-weighted sound level which is exceeded for $n\%$ of the measurement interval.																

L _{Apk}	The peak A-weighted sound pressure level recorded during the measurement interval. The highest peak on the sound pressure wave before any time constant is applied.
L _{Art}	The L _{Aeq,t} plus specified adjustments (usually +5 dB) for tonal and impulsive characteristics.
L _{den}	A description of the day-evening-night noise level. Calculated from separate daytime, evening and night-time noise levels using a specified formula.
L _{WA}	The sound power generated by a noise source due to the conversion of work energy into noise energy. Measured with A-weighting.
L _{A10t}	The A-weighted sound level which is exceeded for 10% of the measurement interval, usually used to quantify traffic noise.
L _{A90t}	The A-weighted sound level which is exceeded for 90% of the measurement interval, usually used to quantify background noise. May also be used to describe the noise level from a continuous steady or almost-steady source, particularly where the local noise environment fluctuates.
Noise sensitive location	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
1/3 octave band analysis	Frequency analysis of sound such that the frequency spectrum is subdivided into bands of one third of an octave each. An octave is taken to be a frequency interval, the upper limit of which is twice the lower limit in Hertz.
Peak particle velocity (PPV)	The rate of change of displacement of the particles in a solid medium due to vibration, measured as mm/s. The unit usually used to assess vibration in relation to activities such as blasting as it correlates well with the degree of human perception to vibration and property damage.
Rated noise level	The L _{Art} described above.
Residual noise	The noise level remaining at a given position in a given situation when the specific noise source is absent or does not contribute to the noise level.
Specific noise	The noise source under investigation for assessing the likelihood of complaints.
Tone	A character of the noise caused by the dominance of one or more frequencies which may result in increased noise nuisance.
Z-weighting	Standard weighting applied by sound level meters to represent linear scale.

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Category	Measure	Objective	No.	Implementation
1. Management	1.1 Quarry Operation hours to be confined to 0600-1900 Monday-Saturday. C&D Facility to be confined to 08.00 to 18.00 Mon- Friday 08.00 to 14.00 Saturday	To eliminate noise emissions outside these hours.	1.1.1	Site foreman will lock gates outside operation hours.
			1.1.2	No plant will be started prior to 0600 hours.
			1.1.3	All plant will be shut down at 1900 hours.
	1.2 No excessively loud plant to be introduced to site.	To avoid introduction of unsuitable plant.	1.2.1	Noise emissions data will be assessed with respect to proposed plant prior to purchase. Emissions levels, tonality and impulsiveness will be assessed.
			1.2.2	Emissions data will be assessed in context of site noise limits and potential offsite nuisance.
			1.2.3	Plant which is deemed unsuitable in the context of 1.2.1 and 1.2.2 will not be introduced to the site.
	1.3 No unnecessary noise sources to be introduced to site.	To avoid generation of unnecessary noise emissions.	1.3.1	No external telephone bells will be installed onsite.
			1.3.2	No tannoy systems will be installed onsite.
	1.4 Noise survey to be undertaken annually.	To assess ongoing compliance with limits.	1.4.1	Noise monitoring programme will be as specified by local authority.
			1.4.2	All noise surveys will be undertaken by independent consultants.
			1.4.3	Noise survey reports will be submitted to local authority and made available to members of the public.
			1.4.4	Any mitigation measures specified in noise reports will be implemented.
	1.5 Noise management plan to be reviewed annually.	To ensure compliance and implement mitigation measures.	1.5.1	Noise management plan will be reviewed within one month following completion of the annual noise survey.
			1.5.2	During review, plan will be modified to include any specified mitigation measures.
			1.5.3	At review stage, previous year's implementation of mitigation measures will be assessed.

Category	Measure	Objective	No.	Implementation
2. Infrastructure	2.1 Internal access road to facility to be provided.	To eliminate noise emissions from bouncing truck bodies when empty.	2.1.1	During construction phase, access road will be provided between site entrance and facility zone. Road will be rolled to form hardwearing surface.
			2.1.2	Surface of road will be inspected quarterly.
			2.1.3	Surface deformations will be repaired immediately.
	2.2 Perimeter berms to be provided.	To screen site noise emissions.	2.2.1	During construction phase, earth berms of minimum height 3 m will be constructed around the entire perimeter of the waste facility.
			2.2.2	Perimeter berms will be grass seeded immediately on completion to stabilise their surfaces.
			2.2.3	No site operations will be permitted until berms are completed.
3. Transport	3.1 Transport vehicles to be maintained in good condition.	To reduce noise emissions from trucks.	3.1.1	All inhouse fleet vehicles will be inspected/overhauled in accordance with manufacturer's recommendations.
			3.1.2	Exhaust silencers on fleet vehicles will be replaced immediately if defective.
			3.1.3	Site access will be denied to any truck with defective exhaust silencers.
	3.2 Transport vehicles to be driven considerately.	To eliminate noise nuisance.	3.2.1	Inhouse drivers will be instructed to drive trucks in normal engine revolution range.
			3.2.2	Inhouse drivers will be instructed to avoid unnecessary engine revving.
			3.2.3	Horn hooting will be prohibited onsite.
			3.2.4	Any drivers found to be driving aggressively onsite will be reprimanded.

Category	Measure	Objective	No.	Implementation
4. Processing	4.1 Plant to be maintained in satisfactory condition.	To eliminate excessive noise emissions.	4.1.1	All onsite plant will be maintained in accordance with manufacturer's recommendations.
			4.1.2	Any components which become worn or defective will be repaired or replaced immediately.
	4.2 Plant to be operated in a satisfactory manner.	To eliminate unnecessary noise emissions.	4.2.1	All plant will be operated in accordance with manufacturer's instructions.
			4.2.2	All plant will be operated within tolerance ranges specified by manufacturers.
			4.2.3	Individual operations guidance procedures will be drawn up for crushing and screening plant.
			4.2.4	Where an operator is of the opinion that an item of plant is not operating correctly, the operator will shut down the plant immediately.
			4.2.5	Site management will commend employees for responsible behaviour such as that in 4.2.4 Employees will not be reprimanded for such behaviour.
	4.3 Unnecessary activities which generate noise to be prohibited.	To eliminate unnecessary noise emissions.	4.3.1	Plant buckets will not be allowed to hit concrete aprons or other surfaces with undue force.
			4.3.2	When connecting/disconnecting buckets or other plant, or undertaking any activities which require application of force, use of hammers/mallets will be avoided as much as possible.

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ATTACHMENT E.6

Environmental Nuisances

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Attachment E.6 Environmental Nuisances

Environmental nuisances (bird, litter, odour and vermin control) are described in Sections 9, 4.8, 14.2 of the EIS. Dust control and road cleansing measures are described in Sections 9.4 and 12.4.

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ATTACHMENT F

Control & Monitoring

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ATTACHMENT F.1

Treatment, Abatement and Control Systems

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Attachment F.1 Emissions and Abatement

The only emission to groundwater from the facility is the percolation area serving the existing septic tank for two toilets and two sinks. Controls for emissions to groundwater are described in Section 6.6 of the EIS.

Emissions and control measures for surface water are dealt with in Section 7.5 of the EIS. Emissions and control for air are described in Section 9.4 and 10.4 of the EIS. The surface water discharge to the adjoining stream is related solely to the quarrying activities. The wash water from the sand and gravel washing plant is treated in on-site settlement lagoons.

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ATTACHMENT F.2

Monitoring & Sampling Points

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Attachment F.2 Air Monitoring & Sampling Points

The dust monitoring to be carried out at the facility is described on Table 1 below and the locations are shown on Drawing No. 4 which accompanies this attachment.

Table 1

	Locations	Frequency	Parameter	Methodology
Dust (AD1, AD2, AD3, AD4)	4 No. See Figure 1	Three Times Per Annum*	Inorganic, Organic & Total Dust	VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument

* Twice between May and September

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ATTACHMENT F.3

Surface Water

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Attachment F.3 Surface Water Monitoring

Section 7.3 of the EIS describes the surface water monitoring carried out on the stream adjacent the site boundary to establish baseline conditions. The trade effluent licence for the discharge from the on-site lagoons requires monthly monitoring of the discharge and the receiving stream, up and downstream of the discharge point as shown on Drawing No. 4 which is included with Attachment F2. In addition continuous flow measurements are required. Details of the monitoring are specified in the Licence, a copy of which is included in Attachment E 2.

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ATTACHMENT F.4

Sewer Discharge

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Attachment F.4 Sewer Discharge

The discharge from the facility is limited to foul water from welfare facilities to an existing septic tank, which has been in situ for approximately 20 years. It is proposed to install a proprietary wastewater treatment system, with percolation area at the site, as required by the planning permission. Details of the system will be agreed in advance with the Planning Authority.

Leachate from the compost area will be collected in an underground storage tank and removed as required to a waste water treatment plant. It is not proposed to carry out routine monitoring of this as part of the waste licence. Monitoring will be carried out as requested by the operator of the waste water treatment plant.

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ATTACHMENT F.5

Groundwater Monitoring

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Attachment F.5 Groundwater Monitoring

There will be no direct emissions to groundwater from the facility.

There are three groundwater monitoring wells on the site which it is proposed to monitor annually for the parameters listed in Table F5.1 and as shown on Drawing No. 4 included with Attachment F2.

Table F5.1:

Name	Frequency	Parameters	Methodology
Groundwater (AMW2,AMW3, AMW4)	Annually	Electrical Conductivity, pH, Total Organic Carbon, Total Petroleum Hydrocarbons & Mineral Oils	ISO/CEN approved or equivalent

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ATTACHMENT F.6

Noise

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Attachment F.6 Noise

Noise monitoring to be carried out at the facility is described on Table F6.1 and at the locations shown on Drawing No. 4 which is included with Attachment F2.

Table F.6.1

	Locations	Frequency	Parameter	Methodology
Noise (AN1, AN2, AN3, AN4, AN5)	5 No. See Figure 1	Annually	L(A)EQ [30 minutes] L(A)10 [30 minutes] L(A)90 [30 minutes] Frequency Analysis(1/3 Octave band analysis)	ISO 1996. Acoustics - Description and Measurement of Environmental Noise. Parts 1, 2 and 3.”

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