An Bord Pleanála

Inspector's Report

Ref.:	SU08.SU0028
Development:	Quarry producing sand and gravel products including a sand washing plant and all associated site works in accordance with plans and particulars submitted. Gortagullane, Coolies, Muckross, Killarney, Co. Kerry.

APPLICATION:

Planning Authority:	Kerry County Council
Planning Authority Ref.:	EUQY094
Applicant:	Patrick Doyle
Type of Application:	Substitute Consent pursuant to Section 177E of the Planning and Development Acts, 2000-2011, as amended.
Planning Authority Report:	Recommends a GRANT of Substitute Consent subject to 41 No. Conditions for the Reasons and Considerations as stated.
INSPECTOR:	Robert Speer
Date of Site Inspection:	27th September, 2013

1.0 SITE LOCATION AND DESCRIPTION

1.1 The application site is located in the rural townland of Gortagullane, Co. Kerry, approximately 4km southeast of Killarney town centre and 2.2km northeast of Muckross House in Killarney National Park, along a minor local road to the east of the N71 (Killarney-Kenmare) National Primary Road. The surrounding area is one of undulating rural countryside dominated by agricultural grassland with expanses of peatland and commercial forestry on the more elevated lands to the east and southeast, however, there is a notable concentration of one-off residential development located along the roadways in the area with particular reference to the immediate northwest of the site. The site itself adjoins open agricultural fields to the south, east and west, although it is also bounded by a disused quarry to the west with an auto-parts business located beyond same. The northern site boundary is defined in part by the public road and by the rear garden areas of a series of residential properties located alongside the roadway. The site is irregularly shaped and presently comprises an active sand and gravel quarry which extends southwards from the public road. This existing quarrying operation involves the extraction of sand and gravel by means of mechanical excavation with no requirement for blasting. The aggregates are subsequently washed and screened on site as required using mobile plant before being stockpiled prior to removal off site. The site is accessed by a purpose-built roadway, the lower sections of which are paved, with the remainder of the accessways / haul routes within the site consisting of compacted ground. The quarry floor is characterised by series of topographical hollows, including 3 No. lagoons, in addition to various stockpiles of excavated material with a small complex of structures/containers and the screening plant located in the northern part of the site.

2.0 BACKGROUND AND DESCRIPTION OF DEVELOPMENT

2.1 The subject application has been made pursuant to a notice issued by Kerry County Council under Section 261A(3)(a) of the Planning and Development Acts, 2000-2010 (as amended) which directed the applicant to apply for Substitute Consent for the existing quarry development under Section 177E of the Planning and Development Acts, 2000-2010 (as amended). However, following an application for an extension of time pursuant to Section 177E(4) of the Planning and Development Acts, 2000-2010 (as amended) the Board issued an order which extended the period for making said application to 11th April, 2013 (08.SH.0070 refers).

2.2 The present application, which has been accompanied by a Remedial Environmental Impact Statement and a Remedial Natura Impact Statement, was received by the Board on 11th April, 2013 and has sought Substitute Consent for the following development as per the public notices.

> *'A quarry producing sand and gravel products including a sand washing plant and all associated site works in accordance with plans and particulars submitted'.*

2.3 The application site has a stated site area of 5.9 hectares and comprises 4.78 hectares of disturbed land, including an extraction area of 1.98 hectares, in addition to 1.12

hectares of undisturbed land. Details of the application site (outlined in red) are shown on Drawing No. 12-003-2001 Rev. 0 which has accompanied the application.

3.0 RELEVANT PLANNING HISTORY

3.1 On Site:
Quarry Reg. No. QY094. On 27th April 2007 the Planning Authority issued an order pursuant to Section 261(6)(a)(ii) of the Planning and Development Act, 2000, as amended, which imposed 39 No. conditions on the operation of the quarry registered at Gortugulllane, Coolies, Killarney, Co. Kerry.

PA Ref. No. 08/2019. Was granted on 7th January, 2009 permitting Patrick Doyle permission to extend the boundaries of the existing quarry, to intensify use by increasing the tonnage, to incorporate a sand washing plant, and all associated site works.

PA Ref. No. 09/247. Was granted on 20th August, 2009 permitting Patrick Doyle permission to construct a dwelling house, garage with combined office accommodation, also to include septic tank, percolation area and all associated site works.

4.0 DETAILS OF DETERMINATION UNDER SECTION 261A (2)(a)

4.1 In its determination of Quarry Reg. No. EUQY094 pursuant to Section 261A of the Planning and Development Acts, 2000-2010, as amended, the Planning Authority concluded that the quarry in question had commenced operation prior to 1st October, 1964, that planning permission had also been granted in respect of the quarry under Planning Reg. No. 08/2019, and that the requirements in relation to the registration of the quarry under Section 261 of the Act had been fulfilled. Furthermore, it was determined that:

- Development had been carried out after 1st February, 1990 that would have required an Environmental Impact Assessment and such an assessment was not carried out.
- Development had been carried out after 1st February, 1990 that would have required a determination as to whether an environmental impact assessment was required, and such determination was not made
- Development had been carried out after 26th February, 1997 which would have required an Appropriate Assessment and such an assessment was not carried out.

4.2 Accordingly, on 7th August, 2012 the Planning Authority issued a notice under Section 261A(3)(a) of the Planning and Development Acts, 2000-2010 (as amended) which directed the applicant to apply for Substitute Consent (*N.B.* A subsequent application to the Board for a review of the determination of the Planning Authority under Section 261A(6)(a) was deemed invalid on the basis that it had not been made within the period specified for making an application for review).

4.3 The Planning Report prepared in respect of the aforementioned determination initially noted that the quarry had an extraction area of 1.98 hectares and that the excavations had remained above the groundwater table whilst surface waters appeared to have been contained within the quarry. It was also noted that there were no silt ponds / sediment traps within the quarry and that there was no wheelwash or weighbridge on site. The subsequent assessment pursuant to Section 261A(2)(a) of the Act stated that following an analysis of aerial photography dated 1995, 2000 and 2006, in addition to survey work carried out on 1st July, 2011, the Planning Officer was satisfied that the quarry had been substantially developed since 2000 with little extraction having taken place prior to this date and that the development carried out within the quarry had not been undertaken pursuant to pre-1964 authorisation. In addition, the assessment also noted that whilst there was another quarry on the adjacent lands to the immediate west of the subject quarry (and that this was linked to the application site), the lands occupied by that quarry were not included in the registration of the subject quarry in 2005 and were not registered in the applicants name i.e. Mr. Patrick Doyle. At this point the Planner's Report makes reference to the grant of permission issued in respect of PA Ref. No 08/2019, which sought permission to *'extend the boundaries of existing quarry, intensify use by increasing the tonnage, incorporate sand washing plant and all associated site works'*, and states that as that application had sought to extend the extraction boundary by 0.681 hectares and to intensify the extraction of sand and gravel from within the entire quarry site of 5.9 hectares, having regard to the intensity of the extraction proposed and the size of the entire quarry site, the application should have been accompanied by an EIS. The report also notes that PA Ref. No 08/2019 had not been screened for EIA.

4.4 The EIA Screening Report which aided in the Planning Authority's determination of Quarry Reg. No. EUQY094 pursuant to Section 261A of the Planning and Development Acts, 2000-2010, notes the following:

- There are approximately 70 No. dwellings within 500m of the quarry boundary with the nearest receptor located 70m north of the quarry.
- There is a Special Protection Area and a proposed Natural Heritage Area located 350m west of the quarry. In addition, there is a Special Area of Conservation located 350m west and 550m south of the quarry.
- There is no evidence of silt ponds within or surrounding the quarry whilst surface waters flowing from the quarry ultimately discharges to Lough Lein, a designated candidate SAC and SPA.
- The ground water aquifer at this location is classified as a *Regionally Important Karstified Aquifer* by the Geological Survey of Ireland. In addition, the ground water vulnerability is given as *'High to Low'* and, therefore, according to the GSI, a vulnerability of *'Extreme'* is assumed. There are a significant number of groundwater wells located 850m southeast of the quarry.
- According to Teagasc subsoil data, the quarry site previously consisted of Till derived from Devonian Sandstones.
- The bedrock in the quarry and surrounding areas consists of Dinantian Upper Impure Limestone.

- The air quality for the area within which the quarry is located (i.e. Zone D: Rural Ireland) is presently characterised in the EPA's air quality database as 'good'.
- It is acknowledged that quarrying operations and associated activities can result in elevated Particulate Matter and Nitrogen Dioxide concentrations at a more local level, both from direct (quarrying, crushing etc.) and indirect (transport) sources. In this respect it is noted that the *'Quarries and Ancillary Activities, Guidelines for Planning Authorities'* state that *'residents living in proximity to quarries can potentially be affected by dust up to 0.5km from the source, although continual or severe concerns about dust are most likely to be experienced within about 100m of the dust source'*. Similarly, it is accepted that sensitive ecological communities can also be affected by air pollutants which can impact on soil fertility, pH and other environmental conditions required for ecological integrity.
- There are 5 No. archaeological monuments located within 500m of the quarry and an Archaeological Impact Assessment has not been carried out at any stage during the development of the quarry.
- Loading shovels and diggers are used to extract the gravel whilst aggregates are also processed within the quarry. The nearest noise sensitive receptor is located c. 70m north of the quarry. In addition, articulated traffic delivering aggregates from the site passes along Local Road No. L-3015-0.
- The quarry site and the surrounding area are classified as Secondary Special Amenity in the County Development Plan.

4.5 This Screening Report subsequently analysed the characteristics of the quarry, the location of the development, and the characteristics of the potential impacts arising from same, before setting out a summary of the key environmental impacts associated with the development under consideration (*N.B.* Particular concerns were raised with regard to the impact of noise and dust emissions emanating from the development given the proximity of nearby residences in addition to the discharge of surface waters to designated Natura 2000 sites). The report then concluded that an Environmental Impact Assessment should have been carried in respect of the subject quarry.

4.6 The AA Screening Report appended to the Planning Authority's determination states that a Stage 1 screening exercise was unable to rule out potentially significant impacts on hydrology in the area and water quality downstream of the site. In this respect it refers to the Castlemaine Harbour SAC and the Killarney National Park, Macgillycuddy's Reeks & Caragh River Catchment SAC which contain a number of water dependent species including Lamprey, Salmon and Otters which are listed for protection within the relevant conservation objectives. The report also states that it was unable to rule out the potential for significant impacts on the Lesser Horseshoe Bat (by way of potential loss and / or fragmentation of key habitat and / or disturbance). Accordingly, it was concluded that Appropriate Assessment would be required due to potential likely significant impacts on Natura 2000 sites. Notably, this report also states that it was understood that for the most part quarry works did not occur at the subject site after 3rd July, 2008.

5.0 SUBMISSIONS ON THE APPLICATION FOR SUBSTITUTE CONSENT

5.1 Inland Fisheries Ireland:

- States that Inland Fisheries Ireland was advised of the subject application by the applicant's agent and that it has already submitted its views as regards potential impacts on fisheries. Furthermore, it states that if the safeguards mentioned in the mitigation measures for hardstands, interceptors, material and water storage, and surface water diversion etc. are put in place, and there is confirmation that domestic effluent disposal complies with up-to-date EPA guidance on percolation requirements, the IFI should be satisfied that there will be no impact on waters which may affect fisheries.

6.0 PLANNING AUTHORITY REPORT

6.1 The Planning Authority's Report on the substitute consent application was received by the Board on 15th July, 2013 and has recommended that Substitute Consent be granted in respect of the subject quarry (PA Ref.: EUQY094) located at Gortagullane, Coolies, Killarney, subject to 41 No. conditions, for the reason listed hereunder:

> *'The Planning Authority is satisfied that the quarry, has commenced operation before 1st October, 1964, the requirements in relation to registration under Section 261 were fulfilled and planning permission was granted to extend the quarry and intensify its use'.*

6.2 This report details the various provisions, policies and objectives of the development plan considered relevant to the quarry and includes the following general observations / recommendations with regard to current and anticipated significant effects on the environment:

- *Human Environment / Population:*
  The application site is located adjacent to a number of residences, however, it was registered pursuant to Section 261 of the Planning and Development Act, 2000, as amended, and conditions were imposed on its operation under Section 261(6). In addition, the quarry has the benefit of the grant of planning permission issued in respect of PA Ref. No. 08/219. Therefore, the application site has an established land use right.

  The imposition of standardised conditions in relation to noise, operating hours and dust levels are necessary and should suffice to minimise the impact of the development on the adjacent human environment / population.

- *Water:*
  From a review of Table 4.7 of the EIS it is noted that extraction has remained above the ground water table and that the aquifer level is located in excess of 4m below the present quarry floor. Accordingly, there is no pumping of ground water from the site to facilitate the extraction of aggregates from below the water table.

According to the Geological Survey of Ireland the groundwater aquifer at this location is classified as a *Regionally Important Karstified Aquifer* and as a groundwater vulnerably of *'High to Low'* has been given, a groundwater vulnerability of *'Extreme'* is assumed. In addition, there are a significant number of groundwater wells located 850m southeast of the subject quarry.

In light of the aquifer type and, in particular, its vulnerability to contamination, it is recommended that extraction be required by way of condition to remain 1m above the highest level of the groundwater table. It is further recommended that the owner / operator be conditioned to install toilet and canteen facilities together with a form of on-site wastewater treatment system within a specified timeframe with the specific details of same to be agreed with the Planning Authority.

Proposals should be submitted for a settlement lagoon system / ponds to remove particles >0.004mm in diameter. The minimum pond depth should be 1m with a uniform horizontal flow at the entry to the pond and uniform horizontal flow throughout same. The foregoing requirements should be imposed as conditions in any decision to grant substitute consent.

- *Soil & Geology:*
  No further soil stripping is proposed by virtue of the nature of the application.

  Standard conditions should be imposed in respect of waste storage.

- *Air Quality:*
  Standard conditions should be imposed. Dust levels should not exceed 350mg/m^2/day (when averaged over a 30-day period).

- *Archaeology:*
  It is noted that there are no archaeological monuments within the quarry and that the nearest monument is located 70m from the boundary of the application site and is in no danger of being directly impacted on by the continuation of quarrying activities on site.

  Whilst the County Archaeologist has recommended that the stripping of topsoil to facilitate further quarrying in previously undisturbed areas of the site should be subjected to archaeological monitoring under licence from the National Monuments Service, given that an application for Substitute Consent concerns development which has already been carried out, the imposition of conditions relating to future development such as soil stripping and associated works are matters for consideration in an application to further extend the quarry which should be lodged separately under Section 34 of the Act.

- *Noise:*
  Standard conditions should be imposed. Noise levels should not exceed the following parameters at the nearest sensitive receptor:

  Daytime: 08:00-20:00 hours
  LAeq (1hr) = 55dBA

  Night-time: 20:00-08:00 hours
  LAeq (1hr) = 45 dBA

- *Landscape:*
  The existing site is located in an area designated as Secondary Special Amenity. Due to its topography and location, the site may be adequately screened by landscaping and bunds. Therefore, it is recommended that the provision of same be included as a condition of any decision to grant substitute consent.

- *Ecology (Flora & Fauna) and Impact on European Sites:*
  Concurs with the recommendation outlined in Section 2 of the EIS and in the NIS that a targeted rare plant survey be undertaken during the first summer season (May - July) to assess the site for rare and protected plant species and that appropriate mitigation measures may be required.

  Notes that Section 2 of the EIS and the NIS outline that the site contains a potential bat roost and possible commuting / foraging habitat for bats throughout the eastern part of the site associated with tree lines and hedgerows. Therefore, it is recommended that a bat survey be carried out in order to rule out adverse impacts on the bat population.

  Notes that disturbed ground (often associated with quarrying) can create a favourable habitat for the colonisation of invasive alien plants, which constitute a threat to biodiversity interests. In particular, quarries can subsequently act as source locations from which invasive plant species can disperse into the wider landscape. Given the proximity of the quarry to sites of ecological interest and to the extent of such sites in the wider area, it is recommended that control measures be out in place so as to prevent the establishment of invasive plant species within the site.

  It is recommended that landscaping plans, including those for the quarry closure stage, should be resistant to invasion by alien plants and should seek to improve ecological connectivity within the wider landscape.

  Notes the proposal to install a hydrocarbon interceptor treating surface water runoff from the hardstanding areas and to install a wastewater treatment system to avoid bacterial and hydrocarbon contamination of the lagoon and subsequent groundwater (Section 2, S3.1.3, 3.2.3, hydrological impacts). It is also noted that

additional mitigation measures are proposed in Section 3 which are of relevance, including the storage of hazardous substances.

7.0 DEVELOPMENT PLAN

Kerry County Development Plan, 2009-2015:-

Chapter 7: Natural Resources:

Section 7.2: *Extractives Industry: General Extractives Objectives:*

NR 7-5 - *The supply of aggregates:*
Facilitate the development of the extractive industry and seek to ensure the on-going availability of an adequate supply of aggregates for the construction industry.

NR 7-6 - *Environmental Impacts:*
Minimise the adverse effects on the environment and the local community associated with aggregate extraction, processing, delivery and associated concrete production.

NR 7-7 - *Location:*
Ensure that quarrying and mining does not occur in areas where the visual or other impacts of such works would adversely injure the amenities of the area or create significant adverse effects on the road network in the area.

NR 7-8 - *Extraction:*
Promote the appropriate development of aggregate extraction in peripheral areas of the County.

NR 7-9 - *Landscape Conservation:*
Ensure that development for aggregates / mineral extraction, processing and associated concrete production will be prohibited in Prime Special Amenity Areas and will not generally be permitted in open or sensitive lands

Chapter 11: Natural Environment:

Section 11.1: *Environmental Protection*

Section 11.2: *Natural Environment*

EN 11-22: *EU and National Designations:*

a) Ensure that development likely to have serious adverse effects on the areas listed will not normally be permitted. The designation of sites does not imply a total restriction on all development. Applicants must demonstrate that the proposed development will not have a negative impact on the fauna, flora or habitat being protected through an Appropriate Assessment under Article 6 of the Habitats Directive

which is a requirement for development proposals affecting European Sites.

b) Ensure that any development proposal in the vicinity of or affecting in any way a designated European Site or NHA provides sufficient information showing how its proposals will impact on the designated site. Appropriate mitigation measures must be indicated.

c) Support and promote measures to control and manage the presence of alien/ invasive species and weeds in consultation with the National Parks and Wildlife Service.

d) Facilitate the National Parks and Wildlife Service in the implementation of the "Main Objectives Over The Coming Five Years and Beyond" as set out in the Conclusions of the National Parks and Wildlife Service Report "The Status of EU Protected Habitats and Species in Ireland", (NPWS, Department of the Environment, Heritage and Local Government", (2008) and in the implementation of conservation management plans for Natura 2000 sites.

EN 11-23: *Special Areas of Conservation:*
Maintain the conservation value of those sites as defined in the Planning & Development Act 2000 (Special Areas of Conservation, Special Protected Areas or Lands Proposed for inclusion in such sites) identified by The National Parks and Wildlife Service of the Department of Environment, Heritage & Local Government, as well as any other sites that may be so designated during the lifetime of this plan.

EN 11-24: *Special Protection Areas:*
Maintain the conservation value of those European sites as defined in the Planning & Development Act 2000 (Special Areas of Conservation, Special Protected Areas or Lands Proposed for inclusion in such sites) selected by The National Parks and Wildlife Service of the Department of Environment, Heritage & Local Government, as well as any other sites that may be so designated during the lifetime of this plan

Chapter 12: Zoning and Landscape:

ZL 12-1: Protect the landscape of the county as a major economic asset as well as for its invaluable amenity value and beauty.

ZL 12-2: To facilitate where possible, in accordance with proper planning and sustainable development, permanent dwellings for family members on their own land.

Section 12.2.8: *Rural Secondary Special Amenity:*
The landscape of areas in this designation is generally sensitive to development. Accordingly, development in these areas must be designed so as to minimise the effect on the landscape. Proposed developments should in their designs take account of the topography, vegetation, existing boundaries and features of the area. Permission will not be granted for development which cannot be integrated into its surroundings.

N.B. The proposed development site is located within an area of '*Secondary Special Amenity*' as delineated on Map 12.1(o) of Volume 2 of the Plan.

Chapter 13: Urban Design and Development Management:
Section 13.19: *Extractive Industry Standards and Guidelines*

8.0 ISSUES AND ASSESSMENT

The application for substitute consent will be considered under the following headings:

- The extent of the application site / quarry area
- Remedial environmental impact assessment
- Remedial natura impact assessment

These are assessed as follows:

8.1 The Extent of the Application Site / Quarry Area:

8.1.1 Prior to my assessment of the Remedial Environmental Impact Statement and the Remedial Natura Impact Statement which have accompanied the subject application for substitute consent, I would advise the Board that I would have a number of concerns as regards the extent of the application site and, more particularly, the size of the quarrying operation, when compared to the site area registered under Quarry Reg. No. QY094 pursuant to Section 261 of the Planning and Development Act, 2000, as amended, and as subsequently extended by the grant of permission issued in respect of PA Ref. No. 08/2019. In this respect I would refer the Board in the first instance to the order issued by the Planning Authority on 27th April 2007 pursuant to Section 261(6)(a)(ii) of the Act which first registered the subject quarry (i.e. Quarry Reg. No. QY094) and imposed a total of 39 No. conditions on the operation of same. Of particular relevance is Condition No. 3 of this order which stated the following:

> *'The quarry excavations and related activities shall be carried out only on the site shown outlined in blue on the site location map scale 1:2,500 submitted on 3 May, 2005. No extraction may take place outside of the blue marked area without a prior grant of planning permission'.*

8.1.2 Following a review of the aforementioned site location map it can be confirmed that the actual quarry area (as restricted to the plot of land outlined in blue on said map) only extended to a site area of 2.806 hectares (or thereabouts) and comprised the more southerly extent of the applicants landholding i.e. it did not extend as far north as either the public road or the rear of those residential properties located to the immediate west of the existing site entrance nor did it encompass the entirety of the area outlined in red on the same map which amounted to 5.928 hectares or thereabouts. Therefore, having established the extent of the 'original' quarry as registered under Quarry Reg. No. QY094 it is necessary to consider the extension of same as permitted by PA Ref. No. 08/2019

and whether or not this would equate to the extent of the existing quarry as detailed in the documentation provided as part of the subject application for substitute consent.

8.1.3 The development proposed under PA Ref. No. 08/2019 sought to extend the boundaries of the existing quarry (with an additional extraction area of 0.681 hectares) and to intensify the extraction of sand and gravel from within the *'entire 5.9 hectare quarry'*. Accordingly, it is necessary to consider these two component parts of the application in turn. In the first instance the proposed quarry extension comprised an area of 0.681 hectares which was outlined in blue on the submitted drawings and located to the immediate southeast of the registered quarry. This area now forms part of the overall quarry site which is the subject of the application for substitute consent. However, I would have concerns as regards that aspect of PA Ref. No. 08/2019 which sought to intensify the extraction of sand and gravel from within the *'entire 5.9 hectare quarry'* on the basis that the quarry as registered under Quarry Reg. No. QY094 only amounted to an area of 2.806 hectares as per Condition No. 3 of the relevant order and thus did not extend to 5.9 hectares (or 5.219 hectares which is detailed as the total 'existing' quarry area on the submitted plans). The issue is complicated further by the fact that Condition No. 3 of the grant of permission issued in respect of PA Ref. No. 08/2019 stated the following:

> *'The quarry excavations and related activities shall be carried out only on the site shown outlined in red on the site location map scale 1:2500 submitted on 1/09/208. No extraction may take place outside of the red marked area without a prior grant of planning permission.'*

8.1.4 In effect, Condition No. 3 of the grant of permission issued for PA Ref. No. 08/2019 would seem to have allowed for the significant expansion of the quarry area far beyond its limit as registered under Quarry Reg. No. QY094. Notably, this expansion resulted in the quarry area exceeding the mandatory threshold for environmental impact assessment yet the application was not accompanied by an EIS. Furthermore, I would advise the Board that, notwithstanding my concerns as regards the actual extent of the quarry extension permitted, it is of relevance to note that PA Ref. No. 08/2019 was granted permission on 7th January, 2009 i.e. after the 3rd July, 2008 (ECJ Case C-215/06). Accordingly, if the development occurred after the 3rd July, 2008 the question arises as to whether or not the Planning Authority's determination under Section 261A(3)(a) of the Planning and Development Acts, 2000-2010 (as amended) which directed the applicant to apply for Substitute Consent for the existing quarry development under Section 177E of the Planning and Development Acts, 2000-2010 (as amended), was correct. Notably, information contained in PA Ref. No. 09/247, which sought permission to construct a dwelling house on those lands in the north-western corner of the existing quarry / landholding, would seem to confirm that the extraction area of the existing quarry had not at that time been extended into that part of the site and, therefore, it would seem that the significant excavation works which have been conducted in this area to date occurred after the 3rd July, 2008.

8.1.5 At this point it should be noted that the subject application for substitute consent refers to a total quarry site area of 5.9 hectares which would seem to encompass the entirety of the applicant's landholding and, in my opinion, there are several outstanding issues with regard to the extent of the quarry area and the timing of the expansion of same which require further clarity and could potentially impact on the appropriateness of any decision to grant substitute consent for the development as submitted.

8.2 Remedial Environmental Impact Assessment:

8.2.1 Human Beings:

8.2.1.1 In terms of assessing the impact of the development on human beings, in the first instance, I would refer the Board to Section 1 of the submitted Remedial EIS which focuses attention on the wider issues of population and settlement, employment and other socio-economic considerations. Whilst I would generally concur with the findings of this aspect of the Remedial EIS as regards the impact of the development on human beings, other than for an acknowledgement that the surrounding area is under significant pressure from one-off housing and that dwelling houses are continuing to be constructed within 250m of the site, no other information has been provided on the number of habitable houses and other sensitive receptors (including a nearby church) within a defined radius (usually 500m) of the site with the potential to be adversely impacted by the quarry both in the past and as a result of its on-going operation.

8.2.1.2 It is also of relevance to note that there are various inter-relationships between effects on the human environment and effects on other aspects of the environment such as air and water quality. Accordingly, in order to avoid unnecessary repetition, I would refer the Board to my assessment of the specific implications of the development as regards soil, water and air quality etc. as set out elsewhere in this report. Furthermore, although referenced in separate chapters of the Remedial EIS, I propose to focus the remainder of my assessment of the impact of the proposed development on human beings on the key issues of noise and traffic.

Noise:

8.2.1.3 The process of the extraction of aggregates gives rise to a variety of noise sources including the mechanical excavation of the pit face, the processing of the aggregates such as washing and screening, and the subsequent loading of material into waiting trucks and its transportation both on and off site. At this point it should be noted that the *'Quarries and Ancillary Activities, Guidelines for Planning Authorities'* acknowledge that most quarries are situated in areas of low background noise and that it is appropriate to consider this when setting noise limits. It is stated that complaints can be expected where the noise levels from quarrying operations are between 5 to 10dB above background noise levels. In addition, in areas of high background noise levels, the EPA recommends that the noise levels at sensitive locations should not exceed a Laeq (1 hour) of 55 dB(A) by daytime and a Laeq (15 minutes) of 45dB(A) by night-time.

8.2.1.4 Section 4 of the Remedial EIS purportedly provides for an assessment of the noise impact of the development as carried out to date, however, having reviewed same, in my opinion, it is clear that this 'Noise Assessment' is entirely inadequate and that there is a

general dearth of information as regards the noise impact of the development contained in the subject application. For example, whilst 'Table 2' has identified 7 No. 'Possible Noise Sensitive Locations' (i.e. private residences) within a 77m radius of the site, the precise locations of same have not been identified on an accompanying map. However, perhaps the most notable omission is the complete absence of any noise monitoring of the historical operation of the existing development or a noise survey to establish background / ambient noise conditions in the surrounding area. Given that the existing quarry is well-established and has reputedly been in operation for many years (pre-1964) the failure to provide any noise monitoring results is particularly regrettable and I would suggest that the extension of time provided for the lodgement of the application for substitute consent as issued by the Board pursuant to Section 177E(4) of the Act would have allowed the applicant sufficient scope to carry out noise monitoring in accordance with best practice. The rationale for the applicants failure to provide noise monitoring results would seem to stem from his assertion that the quarry has never been fully operational since 2007 and thus it was not possible to record the maximum noise levels generated by full on-site operations (i.e. including extraction from the pit face, screening, and transportation within the site), however, I would suggest that this is an inadequate explanation for the complete absence of noise monitoring on site. Indeed, it is my opinion that the 'noise assessment' set out in the REIS is clearly lacking in details specific to the subject site and essentially amounts to a summation of the various noise limits and ELVs typically imposed in respect of quarrying operations and, therefore, is of limited use in terms of assessing the impact of the development to date. Similarly, the applicants comments regarding noise propagation and the prediction of noise emissions emanating from the development site during quarrying operations are vague and of little relevance in the absence of clear site-specific assessment.

8.2.1.5 Therefore, on the basis of the available information, it is my opinion that the submitted REIS is entirely inadequate in terms of providing baseline data on existing conditions and, accordingly, the conclusion reached in the Remedial EIS that noise emissions generated by operations have had no significant impact outside the quarry boundary have not been substantiated.

Traffic:

8.2.1.6 Section 5 of the Remedial EIS notes that the application site is accessed from Local Road No. L-3015-0, which links the N71 National Road with the N22 National Primary Road, and states that, although the existing quarry is fully operational, in recent years its output has declined sharply in parallel with the downturn in the construction sector and that it is presently only operational 2 days a week (08:00-18:00 hours) with an average of 15 No. lorry loads of quarried material leaving the site on those days. It subsequently considers the adequacy of the sightlines available from the site entrance onto the public road having regard to an ambient speed test and traffic count conducted on 12th March, 2013 between 09:00 and 11:00 hours and a further report which provides an analysis of the overall road alignment in the vicinity of the site entrance and its appropriate design speed. The REIS then concludes that the traffic generated by the development is not considered to have a significant adverse impact on the local road network, which is deemed to be satisfactory in terms of carriageway width, surface

treatment and gradient, and that the available sightlines are adequate given ambient traffic speeds in both directions along the public road.

8.2.1.7 Whilst I would accept that the traffic generated by the quarry will invariably be influenced by extraction rates, which will fluctuate to some extent to coincide with market conditions, in my opinion, the Remedial EIS is deficient in that it has only considered the traffic impact of the development on the basis that the quarry operates on 2 No. days per week. No reference has been made to the traffic volumes associated with the historical / peak production period of the quarry in recent years (i.e. 75,000 tonnes per annum as per PA Ref. No. 08/2019) and therefore I would submit that future traffic assessments are not a material consideration. In addition, no details have been provided of traffic distribution from the quarry which would be necessary in order to fully assess the impact on the surrounding road network and, in particular, the capacity of local road junctions including the nearby junction with the N71 National Road.

8.2.2 Fauna and Flora:

8.2.2.1 In the first instance, and in order to avoid unnecessary repetition, I would advise the Board that the proposed development site is not subject to any National or European designation and that my assessment of the impact of the proposed development on the qualifying interests of Natura 2000 sites in the surrounding area pursuant to the Habitats Directive is set out elsewhere in this report under the section entitled *'Remedial Natura Impact Assessment'*. Accordingly, I propose to focus the following aspect of my assessment on the broader environmental impact of the proposed development on the remaining ecological considerations (i.e. those aspects of flora and fauna which are not subject to a requirement for 'appropriate assessment').

8.2.2.2 Section 2 of the Remedial EIS comprises an Ecological Impact Assessment of the existing quarry which is based on a desktop review of the available information in addition to a series of field surveys. It states that on consideration of the type of habitats that occur within the development site, it is unlikely that the site supports any rare or threatened plant species, although it is recommended that a further field survey be undertaken during the optimal time of year (May – July) in order to assess for any rare or protected plant species given that the site was originally surveyed in March when any such plants were only just emerging from the ground or had not been fully established and as rare / protected plant species have previously been recorded within the 10km square in which the site is located (predominantly in Killarney National Park). In relation to avifauna, it states that all the bird species recorded were common to the wider countryside, although a nest colony for Sand Martins was recorded within the north-western part of the application site. Finally, the presence of badgers was noted on site (in an undisturbed woodland area) whilst it was also considered possible that bat species may roost within the derelict building on site and could utilise the linear habitats, such as hedgerows and tree lines along the edge of the site, for commuting and foraging purposes.

8.2.2.3 In terms of the impact of the proposed development on habitats previously present on site, which would seem to have comprised scrub and grassland, the direct loss of same

within the operational area of the quarry was inevitable as part of the works, however, it is my opinion that the habitats lost were probably of a relatively low conservation value and thus the impact arising from the loss of same is not considered to be of significance.

8.2.2.4 In relation to flora and fauna, the development has resulted in the loss of some plant and animal species from within the footprint of the proposed works, whilst it also likely that the disturbance arising during the operational period may also have indirectly impacted on fauna using the site, however, given that no rare plant species were recorded within the site and as the fauna present (which includes some legally protected species such as badgers and sand martins) has most likely adjusted to the quarrying operation (and in the case of sand martins is possibly as a result of same through the exposure of the sand faces for nesting) and are typical of surrounding habitats at a local level, I would suggest that the impacts are of limited significance.

8.2.2.5 In conclusion, it should be acknowledged that most forms of development will invariably impact on ecological considerations to some degree, however, in this instance, I am satisfied that on balance the residual impacts of the development are both localised and of such limited significance and influence as not to warrant a refusal of substitute consent. Accordingly, having considered the available information, in my opinion, the impact of the development on the aforementioned flora and fauna on site is within tolerable limits.

8.2.3 Soils & Geology:

8.2.3.1 Section 4 of the Remedial EIS provides a general description of the soil and bedrock conditions underlying the subject site and I would advise the Board that these details are primarily based on a desk study of information available from the Geological Survey of Ireland database and the Teagasc Soils Map of Ireland, although they are supplemented somewhat by the results of 4 No. trial pits excavated at various locations throughout the site. However, it provides little in the assessment of the actual impact of the quarrying activity on soil and geological considerations. For example, it fails to acknowledge that the quarrying of aggregates, by definition, requires the excavation / removal of topsoil and overburden with the subsequent extraction of rock and, therefore, a direct physical impact on local bedrock within the quarry footprint is unavoidable, although I would accept that it does make some generalised comments on the indirect impacts arising including potential contamination of groundwater underlying the site due to accidental spillages and leakages.

8.2.3.2 Overall, it is my opinion that there has been no clear geotechnical appraisal of the site and the impact of the development on same. In this respect I would suggest that an appropriate geological / soil investigation of the site would be a fundamental part of the determination of the existing environment in relation to this type of operation and that more detailed information is required to provide a better understanding of the nature / characteristics of the geological conditions on site.

8.2.4 Ground and Surface Waters (Hydrology & Hydrogeology):

8.2.4.1 Section 4 of the Remedial EIS also focuses on the hydrological and hydrogeological impacts consequent on the subject development and therefore I propose to consider the following critical impacts on ground and surface waters in turn.

8.2.4.2 In relation to groundwater it is of relevance in the first instance to note that the water table has not been encountered on site and that the existing quarry is worked as a 'dry' pit with no need for dewatering of the excavation. In this respect I note that the REIS states that the 4 No. trial pits excavated to a depth of 4m within the lowest points of the quarry floor did not encounter the water table.

8.2.4.3 In terms of the protection of the groundwater resource the REIS has identified a Regionally Important Karstified Bedrock Aquifer with a 'Moderate to High' vulnerability underlying the site and notes that such a classification would provide for a high rate of percolation to the groundwater aquifer due to a high rate of transmissivity. It is also acknowledged that the vulnerability of an aquifer will increase as a result of quarrying operations due to the stripping of topsoil etc. and the subsequent excavation of the aggregates thereby reducing the filtration capacity between the water table and the quarry floor. Accordingly, the REIS has identified the principle threat to groundwater as contamination from hydrocarbons and the discharge of wastewater / effluent to ground and in order to mitigate these impacts it has recommended the installation of a hydrocarbon interceptor to remove oils etc. from surface water emanating from hardstanding areas in addition to best practice as regards the storage of hazardous substances and the provision of designated hardstanding areas for refuelling, parking, maintenance of plant etc. It has also recommended that a wastewater treatment / septic tank system with a percolation area be installed to treat wastewater arising from the on-site toilet and canteen facilities.

8.2.4.4 Whilst I would accept that the aforementioned mitigation measures would normally be considered acceptable with regard to a proposed quarry development, it must be noted that the subject application is for substitute consent and thus relates to works which have already been carried out on site. In this respect I would advise the Board that at present there are no dedicated hardstanding areas on site for the parking of lorries and other plant and therefore such machinery is currently parked on bare ground evidenced during the course of my site inspection. Similarly, I did not record any evidence of any existing wastewater treatment system on site and thus it is unclear if any discharges from the existing canteen facilities on site have previously been or are continuing to be discharged untreated directly to ground. Accordingly, in the absence of any data derived from the monitoring of groundwater quality (and levels) it cannot be definitively concluded that the operation to date has not resulted in the contamination of groundwater.

8.2.4.5 With regard to surface water I note that this is generally disposed of by way of natural percolation to ground and that whilst there are three settlement lagoons on site which also accommodate runoff there are no outfalls from these lagoons on site and thus the accumulated surface water gradually percolates through the permeable ground conditions on site to enter the groundwater (*N.B.* This was apparent during the course of

my site inspection in that the lagoons were generally dry). Accordingly, I do not consider that surface water impacts are a significant concern in this application, however, it would be appropriate to require the installation of a dedicated surface water collection system to serve the hardstanding areas with all runoff waters from same to be directed to the settlement lagoons by way of a hydrocarbon interceptor.

8.2.5 Air Quality:

8.2.5.1 The extractive industry by its very nature gives rise to dust generation through activities including the extraction / excavation of aggregates from the pit face, the processing of aggregates, including washing and screening, and the associated loading and transportation of materials both within the pit itself and along designated haul routes. Accordingly, it is accepted practice to place a limit on fugitive dust emissions arising from quarry developments in order to protect the amenities of surrounding properties and in order to ensure that the operation complies with these limits by means of a system of regular monitoring. The *'Quarries and Ancillary Activities, Guidelines for Planning Authorities'* as published by the DoEHLG in 2004 specify that total dust deposition (soluble and insoluble) at site boundaries near quarry developments, based on the TA Luft Air Quality Standard, should not exceed 350mg/m^2/day when averaged over a 30-day period. Notably, the *'Environmental Management Guidelines, Environmental Management in the Extractive Industry – Non Scheduled Minerals'* as published by the Environmental Protection Agency in 2006 advocate a similar limit. The Guidelines also state that residents living in proximity to quarrying operations can potentially be affected by dust up to 500m from the source although continual or severe concerns about dust are most likely to be experienced within approximately 100m of the dust source.

8.2.5.2 Section 5: *'Traffic and Dust Assessment'* of the Remedial Environmental Impact Statement acknowledges the presence of a number of dwelling houses to the north and northwest of the site entrance and states that due to the nature of the quarrying activity it is inevitable that dust emissions will arise as a result of the operation. It subsequently states that whilst the absence of any blasting or crushing operations on site will result in reduced levels of dust emissions when compared to, for example, a limestone quarry, it is accepted that there will be a certain amount of dust generated, particularly at the site entrance, along distribution routes within the site and at material stockpiles on site, with dust emissions arising during periods of dry weather having the potential to result in nuisance to local residents and users of the public road. However, in support of the subject application the REIS also states that the existing quarry operation has not given rise to any complaints from local residents to the Enforcement Dept. of the Local Authority. A series of mitigation measures are then proposed to control dust emissions including the dampening down of the site access with the public road, the installation of a wheelwash, the use of a shower sprayer, reduced vehicle speeds, the compaction, grading and maintenance of internal haul routes, and compliance with the dust suppression and monitoring requirements imposed by existing planning conditions.

8.2.5.3 Whilst the applicant's proposals to mitigate the continued operation of the quarry are noted I would advise the Board that no dust monitoring data is available and that the applicant has claimed that it was not possible to ascertain accurate readings within the

timeframe allowed for the preparation of the REIS. In my opinion, such an omission is regrettable, particularly as this is an established activity which has reputedly been in operation for many years (pre-1964). Furthermore, I would suggest that the extension of time provided for the lodgement of the application for substitute consent as issued by the Board pursuant to Section 177E(4) of the Act would have allowed the applicant sufficient scope to carry out dust monitoring in accordance with best practice i.e. averaged over a 30 day period. In addition to the foregoing, other than for a vague reference to nearby housing and road users, no detailed information has been provided in terms of sensitive receptors such as the number and location of houses situated within a 500m radius of the quarry / dust source which is of note given that the '*Quarry and Ancillary Activities, Guidelines for Planning Authorities'* specifically state that residents living in proximity to quarrying operations can potentially be affected by dust up to 500m from the source with continual or severe concerns about dust most likely to be experienced within approximately 100m of the dust source. In this respect I would advise the Board that there are notable concentrations of housing to the northwest and south of the application site with multiple residences within both a 500m and 100m radius of the extraction area. Indeed, I would have particular concerns regarding the extraction operation already conducted within the north-western part of the site to the rear of several dwelling houses along the roadside.

8.2.5.4 Accordingly, I am not satisfied that the information submitted in support of the application provides an accurate description of the existing air environment or that the impacts have been properly assessed.

8.2.5.5 Climatic Factors:

8.2.5.5.1 With regard to the impact of the development on climatic considerations, the submitted REIS has failed to provide any information on same. In this respect I would suggest that the actual quarrying activities on site would have invariably resulted in the emission of some greenhouse gases through the use of various plant and machinery and the transportation of aggregates for use off site, although it is possible that these were mitigated to some extent by adherence to good site management including the continued maintenance of all plant and machinery in good working order and the shutting off of equipment during periods of inactivity

8.2.5.5.2 On balance, I am inclined to accept that when taken in context, and given the scale of the activity involved, the development is unlikely to have given rise to any significant impact on wider climatic considerations, although the failure to comment on this issue could be construed as a further shortcoming in the Remedial EIS as submitted.

8.2.5.6 Landscape:

8.2.5.6.1 The Remedial EIS has acknowledged that the landscape has been indefinitely altered as a result of the quarrying activities conducted on site which have involved the excavation of material from depths between 7m and 14m below the original ground level. However, it has referred to the undulating topography of the surrounding lands and has submitted that the existing quarry is not visible from key tourist routes in the wider area including the 'Ring of Kerry' whilst the use of earthen bunds around the majority of the

perimeter of the site has ensured that the quarrying operation is not generally visible from adjoining lands, the public road or nearby housing, although it has been accepted that there are some locations around the site perimeter which require reinforcement through the construction of further bunding in addition to the provision of screen planting. With regard to the visual impact of the quarry which viewed from Crohane and Mangerton Hills to the south and southeast it has been submitted that this does not detract from the views available over the Killarney Lakes and their environs. Finally, in terms of restoration and aftercare, it has been stated that upon cessation of the quarrying operations the site will be levelled, topsoiled and designed to facilitate future economic activity, such as farming of forestry, although elsewhere in the REIS reference has been made to the site being restored to a grassland habitat.

8.2.5.6.2 Having conducted an inspection of the site and its surrounds, I would generally accept that due to the undulating nature of the topography in the vicinity of the site, the visual impact of the quarry is highly localised, however, I would nevertheless have concerns that the Remedial EIS has failed to provide for a proper in-depth analysis of the overall visual impact of the development, particularly in terms of the receiving landscape, its character, sensitivity and value. For example, from a review of Map 12.1(o) of the Kerry County Development Plan it can be confirmed that the subject site is located within an area of *'Secondary Special Amenity'* yet no reference has been made to same in the Remedial EIS. Similarly, whilst the applicant has made several generalised comments as regards the visual impact of the quarry from locations in the wider area, no evidence such as photographs of the site taken from clearly identifiable vantage points has been submitted to support these assertions. Furthermore, the information provided in the Remedial EIS with regard to the restoration/aftercare of the quarry in order to ameliorate the long term visual impacts is vague and lacking in detail.

8.2.5.6.3 Therefore, on the basis of the foregoing, it is my opinion that this aspect of the Remedial EIS is seriously deficient in terms of the description of the existing environment, the visual impact of the development, and the measures necessary to mitigate said visual impact throughout the operating life of the quarry and following closure.

8.2.5.7 Material Assets:

I propose to focus this aspect of my assessment on the impact of the development on architectural / archaeological heritage considerations.

8.2.5.7.1 Architectural Heritage:

Having reviewed the submitted information, in my opinion, the development is unlikely to have significantly impacted on any item of built heritage in the immediate surrounds of the site.

8.2.5.7.2 Archaeological Heritage:

In terms of the archaeological heritage implications of the development, following a review of the available information as set out in Section 6: 'Cultural Heritage Assessment' of the Remedial EIS, in my opinion, it would seem that no known

archaeological monuments have been directly impacted on by the quarrying activities undertaken on site. However, it remains unclear if any previous unrecorded items of archaeological interest were encountered or disturbed during the course of the quarrying works undertaken on site.

With regard to the recommendation of the County Archaeologist that the stripping of topsoil to facilitate further quarrying in previously undisturbed areas of the site should be subjected to archaeological monitoring under licence from the National Monuments Service, I would concur with the Planning Authority that as the subject application is for Substitute Consent and thus concerns development which has already been carried out, the imposition of conditions relating to future development such as soil stripping and the archaeological monitoring of same are matters more appropriately dealt with by of an application to further extend the quarry which should be lodged separately under Section 34 of the Act.

8.2.5.8 Interactions and Cumulative Effects:

8.2.5.8.1 With regard to the likely inter-relationships between several of the foregoing factors / impacts, whilst several interactions are apparent from the submitted information (e.g. the relationship between the removal of topsoil etc. and the need to ensure groundwater protection), it is regrettable that the subject application has failed to include any specific comment on these issues.

8.3 Remedial Natura Impact Assessment:

8.3.1 From a review of the available mapping, including the data maps from the website of the National Parks and Wildlife Service, it is apparent that whilst the proposed development site is not located within any Natura 2000 designation it is situated approximately 300m northeast of the Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment Special Area of Conservation (Site Code: 000365) and the Killarney National Park Special Protection Area (Site Code: 004028) whilst there are also other protected sites located downstream of the site. It is the policy of the planning authority, as set out in Section 11.2 of the Kerry County Development Plan, 2009-2015, to maintain the conservation value of those sites subject to EU and national designations, including Special Areas of Conservation, Special Protection Areas, Natural Heritage Areas, and any lands proposed for inclusion in such sites. Objective EN 11-22 of the Plan states that any development likely to have a serious adverse effect on a designated site will not normally be permitted and that any development proposal in the vicinity of, or affecting in any way, a designated European Site or NHA should be accompanied by such sufficient information as to show how the proposal will impact on the designated site. In respect of Natura 2000 sites it is also clear that a proposed development may only be authorised after it has been established that the development will not have a negative impact on the fauna, flora or habitat being protected through an Appropriate Assessment pursuant to Article 6 of the Habitats Directive. Accordingly, as the subject application is for substitute consent it has been accompanied by a Remedial Natura Impact Statement.

8.3.2 Having reviewed the available information, including the screening report and ecological impact assessment prepared by the applicant, and following consideration of

the ‘source-pathway-receptor’ model, it can be determined that particular consideration needs to be given to the likelihood of the development to have had a significant effect on the conservation objectives of the Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment Special Area of Conservation.

8.3.3 In my opinion, the remedial NIS can be described as ‘fair’ in its assessment of the impact of the existing development on Natura 2000 sites, however, on balance, it would seem reasonable to conclude that as the existing quarry is worked as a ‘dry’ pit and as there is no discharge of surface water from the site to surrounding watercourses, the development would not have resulted in any significant adverse impacts on the qualifying interests of the protected sites, although some on-going mitigation may be required in respect of continuing works i.e. the installation of hardstanding areas for refuelling etc., the provision of a waste water treatment system on site, and the deployment of an oil interceptor to treat surface water runoff (to the settlement lagoons) on site.

8.3.4 Therefore, on the basis of the information available, the development, when taken both individually and in combination with other plans or projects, and subject to the mitigation measures outlined in both the EIS and the NIS, should not adversely affect the integrity of the Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment Special Area of Conservation (or any other Natura 2000 site) in view of the site’s conservation objectives.

9.0 CONCLUSION & RECOMMENDATION

9.1 Having reviewed the subject application for substitute consent, I am not satisfied that the documentation submitted is sufficient to facilitate a comprehensive assessment of the development. Therefore, it is open to the Board to refuse permission on the basis of the inadequacy of the REIS, or alternatively, to seek further information to include a comprehensive Remedial Environmental Impact Statement (REIS) in accordance with the provisions of S177 (F) of the Planning and Development Act 2000, as amended.

9.2 In the event that the Board consider that a refusal of substitute consent is warranted, I would recommend the following:

Reasons and Considerations

1. The Board is not satisfied on the basis of the information submitted in support of the application for substitute consent, that the information contained in the Remedial Environmental Impact Statement is adequate and that an appropriate assessment of the effects of the development on the environment has been carried out. It is considered that there is insufficient information on the receiving environment and that the significant effects of the development in relation to human beings, noise, traffic, soil & geology, water, air quality, landscape, and the interaction of the foregoing, in addition to cumulative effects, have not been adequately addressed in the Remedial Environmental Impact Statement. It is

considered, therefore, that the development is contrary to the proper planning and sustainable development of the area.

Signed: _____ Date: _____

Robert Speer
Inspectorate