Submission	
Submitter:	Mr Christian Osthoff
Submission Title:	Ballinclare Quarry Restoration planning application observations
Submission Reference No.:	S011349
Submission Received:	27 October 2023
Application	
Applicant:	Kilsaran Concrete Unlimited Company
Reg. No.:	W0311-01

See below for Submission details.

Attachments are displayed on the following page(s).

Ballinclare Quarry Restoration planning application observations. An Bord Pleanala ref. PA27.309991

I live at Sundial house [redacted] (refered to as R11 in the application) and have 120 acres of forestry (refered to as “forest to north” in application), agricultural land and residential houses adjoining the Ballinclare quarry. We have a shared boundary with the quarry of approximately 865 meters (from the north west at the R1113 next to the council yard running roughly south east forming the entire northern boundary of the site). My home is 330m from the quarry edge and my other house (R10 home place and rental property) is 220m from the quarry edge. There are horticultural, lifestock grazing, furniture making, firewood, coppice working, forest school and Yoga businesses on my property with employment for 3 people full time and 5 others part time.

I am fundamentally opposed to the proposed developments on the grounds of sustainability, habitat loss and a dis-improvement of a place to live. We are in a dangerous period of rising greenhouse gas levels, habitat degradation and biodiversity loss. The state is trying to reduce the country’s carbon footprint and halt biodiversity loss and yet this project will bring vast quantities of brown field soils and building waste material mostly from Dublin to rural Co.Wicklow by diesel trucks thus spewing countless tones of greenhouse gasses and particulate matter into our atmosphere. Although calculations have been presented in the application, these have been deemed insignificant in an Irish context. If these are so insignificant, then why are we all as individuals asked to reduce our carbon footprint, from what we eat, how we travel and how we build and heat our homes? Why is there not an equal burden of responsibility put on big businesses such as in this case the quarrying/land filling one!

View towards the south east from Carrigmore forest boundary as seen on the 10th of June 2021

The following are comments on particular points within chapters of the EIA Report.

Alternatives

3.25 Point made that this will be mostly waste from brown field sites with contaminated soils. This was not made clear in the public consultation, referring to it just as inert waste and then when asked verbally told it was "soil with small amounts of building waste such as concrete". This is a very different proposition to clean green field soil which was what we were led to believe.

3.36 "Proximity to market with reduced carbon footprint and sustainable development". With every truck doing an average of 110km round trip (Dublin city centre to site and back again), how does that in anyone's language make that statement true?

3.40 I disagree with the statement that infilling is largely the same as quarrying. It is like saying that building a house is basically the same as knocking a house down which it patently isn't.

3.41 Two outcomes are mentioned for the final habitat after restoration, 1. A grassland and 2. natural scrub……which is it?

3.43 Why is it "better" to foist up to 20 years of land filling onto an already over abused landscape/environment and human population?

In this chapter, the only two alternatives for this quarry is to do a full infill as described or do nothing. As one of the largest such developments in the country, no consideration is given to alternatives such as partially filling the pit and restoring a shallow lake at the base of the cliff and creating a species rich grassland and planting a native forest. This is one of so many alternatives. Perhaps make it into an amenity area/gardens or walking trails. As it stands, Kilsaran are obliged to clean up the mess of waste, concrete structures, sand and gravel heaps and buildings anyway under the current planning permission. The insinuation by this application is that no tidy up happens at all if the proposed plan doesn't go ahead.

Population and human heath

4.85 Claim is made that traffic on L1113 will increase due to development. The opposite is claimed in the traffic chapter…..which is it and why?

4.93 I disagree that the extractive void is unsightly. Quite the contrary as is shown in several photos here. The quarry lake is now the largest water body/wetland in this 10km square at 18.7 acres. It adds interest and dramatic changes in levels to this otherwise sedate landscape. The fact that it is artificial is immaterial to the beauty. I think the residents around the Dalkey quarry site wouldn't agree that it is ugly, even if it too stems from an industrial extractive operation. The main ugly aspect of the site is the remains of the machinery, buildings and sand and gravel heaps, not the pit and lake.

View to the south west from the top of Carrigmore forest boundary as seen on the 10th of June 2021 showing the main area of unsightly quarry residues.

4.105 The “do nothing” option indicates that the site is not even tidied up of its waste and structures.

Biodiversity

I have had an interest in natural history since I was 5 years of age and this has grown into a lifelong obsession. Consequently I know the wildlife of my land, the surrounding area including the quarry site and Co Wicklow generally, exceptionally well. I have recorded 71 species of birds from the Ballinclare quarry site as outlined in the ecologists report. The professional EIAR done for the application found 18 species and no breeding evidence or mitigation. I did 15 years of formal butterfly surveying at Carrigmore and found 21 species. Although I have not been able to record within the quarry grounds, I suspect many of these exist there also given many of the similar habitats. Same for dragonflies, 11 species recorded and almost certainly similar number in the quarry grounds given the amount of water bodies present. I have also done 18 years of moth recording on my farm resulting in 430 species, several of which are almost entirely restricted to Co. Wicklow such as Broom-tip, Streak, Oak Hook-tip (only Irish record at Carrigmore) and Devon Carpet which was first recorded in Ireland in my woods in 2020 and proven to breed. In my submission to the public consultation I mentioned several specific species including breeding Peregrine Falcon and what was being proposed as mitigation. No satisfactory answers were given in the application. Much reference is made to the protected areas around the locality but not enough importance is given to unprotected areas such as my place at Carrigmore and Ballinclare. To get some sense of my place, I have attached an article I did for the Birdwatch Irelands’ magazine, Wings in 2018.

Despite my broad knowledge of nature, I am still only an amateur naturalist so I employed an expert to elaborate on this section. That ecologist is Faith Wilson and she did the attached report. She has vast professional knowledge of the area.

Winter scene in early 2018 looking west from top of Carrigmore

Water

As a lay person with absolutely no qualification in this area, I can only speak from a “gut feelings” point of view on this subject. Paragraph 7.49 states that the asbestos that was found in the quarry was of such a small amount that the risk was deemed acceptably low to human health and yet this was deemed bad enough to have warranted closing down the quarry . There is a fundamental difference of opinion there which makes me distrust much of what is claimed about asbestos in this quarry. So many times throughout the EIAR the claim is made that various emissions/nuisances are deemed low or insignificant to surrounding receptors and yet here is one that was deemed “acceptably low” and still closed this quarry.

My number one concern to start is the dewatering of the quarry into the Potter’s river. As stated there are several high chemical readings from this water including arsenic and it is far from clear as to how this

is filtered, whether through the existing infrastructure or through the newly built wetland filter bed? If it is through the former how is the water managed as the old system is decommissioned and the new one built as it is mostly within the same area. I am going to assume that the water quality, in theory, is perfect for discharge into the river on the basis that there is enough filtering, monitoring and regulation around this however I am concerned that human error can play its part as is always the case. How is this mitigated for? I also note that the levels in the main quarry pit are far higher than when the survey for the report was done. Using Google earth to measure the area of the current lake and estimate the depth from contour maps, I have estimated that there are over 600000m3 of water now, well over twice the survey results. This will change calculations for time taken to dewater from the quarry pit.

Showing water levels not long before EIA study (late 2018)

It is claimed that the liner will protect the underground water from contaminants in the brownfield soils and construction materials but as this is only another layer of “clean” soil, how can that possibly work? As I pointed out in my pre-planning submission, there are 5 wells at my place on Carrigmore. What guarantees will be in place that these are tested enough and compensated for if found to be polluted by the landfill? How will I even prove that this is landfill derived if it does happen? The horticulture business at Carrigmore also abstracts water from the Potter’s river just upstream from the road bridge on the L1113. This is below were water from the quarry will enter. Although the water is filtered for use in growing food, any major breach in contaminated water from the landfill cannot be accounted for by this filter. Again I ask, how is this mitigated for? I would suggest routing the water by pipe to a point much further downstream near the M11/Tap.

Air quality

8.142 The table here indicates that the C+D and crushing will take place inside a closed in shed and so have a high impact of stopping dust and thus a low dust output. From reading the drawing of this shed I can see that two sides are open which would have no more effect other that sending the dust in an easterly or westerly direction depending on wind. If the wind is strong enough, I would suggest the shed has little impact on dust suppression.

8.78 How is “medium sensitivity” decided on for all surrounding receptors when they are as much as 0m away to 1000m away? My forest which is immediately to the north of the site is BOTH an amenity and a commercial enterprise, not just amenity as claimed in the report. With the prevailing wind coming from the SW, this is the most sensitive zone. There was no dust/air quality monitoring along the entire north east side of the site, even though this is where most of the potential dust will be blown by the prevailing wind. In the past during quarrying periods, the leaves on the trees here would be totally covered in dust, thus holding back their growth, not to mention the health of the other wildlife and human users of the forest. The study found this area to be of “insignificant” sensitivity after it was modeled and I cannot understand or accept this finding.

8.152 Forest to north of site, which is mine, is treated like a buffer zone. This does not belong to the quarry and cannot be used as a buffer to houses and other “more affected receptors”. The forest is a receptor and is as sensitive to dust as any other habitat, residence and business. I also read that only the edge trees and shrubs closest to the boundary will be affected by the dust. Having seen how dust travels over most of my life, I can say with some confidence that I disagree with the report’s findings. I understand that infilling is a different activity to quarrying but the crushing, earth moving, soil washing and C+D all have similarities to quarrying activities and potential for dust creation.

Shows how close Carrigmore forest is to the quarry boundary on the right

8.118 My forest, R10 and R11 get a “moderate adverse” rating pre mitigation. My forest gets a “insignificant “ for post mitigation and R10 and R11 an “acceptable for post mitigation. This indicates to me that after enduring dust for most of my life, I am expected to accept continued dust nuisance on my land, houses and health without any compensation. As proof that dust doesn’t abide by boundaries, hills, trees, shrubs or distance of 330m plus, I used to spend my younger days cleaning gutters on the buildings around R10 of quarry dust. This was not acceptable then nor is it now.

Claims that the asbestos is only bound up in the solid rock is hard to believe. As a child I used to “explore” the quarry at weekends, looking at the unusual landscape, the big machinery and the wildlife in the less disturbed parts of the quarry. On several occasions I would find bits of flakey fibrous material which were similar but not the same as wood which had been bashed up and covered in grey dust. I realized it was a mineral at the time but thought nothing more of it. When word came out about 6 years ago that naturally occurring asbestos was found with the resulting closure, the penny dropped as to what I was finding all those years ago….it was the asbestos! With such a long period of quarrying, crushing and grading, I cannot believe that most of the surfaces within (and beyond) the quarry don’t have small amounts of asbestos dust on them. When works begins on preparing the site for infilling, this dust will be disturbed, especially after draining of any water bodies.

I also note that the dust study is out of date as the horticulture business is not mentioned as a receptor and such a business is deemed as a medium sensitive receptor. I hardly have to explain that polytunnels covered in dust will be very ineffectual growing spaces and will require much more frequent washing. Outdoor grown food will also be covered in dust which will require washing.

It is claimed that the vegetation such as gorse will stop most of the dust entering my forest. This is partially true along about 640m of boundary where there is either a vegetated manmade bund or a natural bank on the quarry side of the boundary. However, 225 meter of boundary has no such bank and little or no vegetation on the quarry side. There is very little land on the quarry side along this stretch and actually at least two points the cliff face drops directly from the boundary. How then can it be claimed that there is vegetation etc to protect my trees etc? They have also proposed a fence be erected but without either having the land to work on or to erect on, how is this possible? They have not asked for permission to enter from my side to do this.

Noise

I note that in appendix 10-B, distance to R11 (my house) is given as 360m for excavator, HGV and dozer. The quarry edge is actually 330m from my house and when the fill gets up there, those machines will be that close and at least 30m above the level of my house. A few years ago there was a much smaller infill going on over some wet fields just north of the Deputys pass junction some 400m+ from my house. This fill was only 2-3m over the height of the surrounding land and more or less at the same level as my house. The noise from the dozer and the bleeping HGVs was intolerable and it was at least 70m further away than the proposed landfill is from my home.

10.81 Point made that the quarry cliff face will be a noise reducer and that in the report the DB calculations were reduced by 15DB as a consequence. I have lived with quarry noise most of my life and the quarry face had very limited value and only in certain situations in reducing the noise levels. It also must be born in mind that most of the past quarry work was going further and further down into the bit while in this case, works will become higher and higher as its filled up. It could in fact be argued that the quarry face acts as an amplifier or speaker with its vertical curved walls.

10.82 crushing and C+D inside shed so noise calculation reduced by 22DB. This would be true if it was a fully enclosed shed and got some sort of sound insulating roof but two sides of this shed are open and the roof material is single skinned corrugated iron. This will have little or no ability to absorb sound and may in fact be even noisier in the direction of the open sides (east and west).

10.115-10.120 Claimed conclusion is that at the two most affected houses, R9 and R10, the sound will be moderate to minor. At R10, where I grew up, I heard the crushers, HGVs, excavators, graders (equivalent to the washing plant) working and I certainly would not have called it minor noise. Back then most of this noise was happening at the bottom of the pit but that will not be the case now as the pit fills, the noise will become much worse than in the past. I can find no noise calculations for the increased working height. There will be little or no obstacles for sound when work is happening near the top edge of the quarry pit and thus travel further and affect more receptors than are allowed for in the study.

I note that no noise assessment was made for the houses along the haulage route on the L1157 which may not be affected much by the site noise but will by HGV traffic within meters of their houses. As they will have double the number of trucks passing than, during max quarrying times, this is not within the previous planning permission limits.

I also note that the baseline noise monitoring was only conducted between April and October 2019 for a minute a month at three locations. That means there is no baseline data for half the year during winter months when no leaves are on trees. The 3 location are N1 to the north, N2 to the west and N3 to the south east. No baseline monitoring done to the north east where sound is naturally louder due to the prevailing wind from the south west. From discussions with the owner of the land at N3, permission to enter the land was only asked for one of the survey days. Not a good start to have when Kilsaran claim to have a good neighbourly relationship policy!

One of the most far carrying sounds to emanate from a quarry/infill site is that of reversing bleepers. I understand that they are a necessity for health and safety reasons but not to the point that they can be one of the main things to hear from outside the site. These bleepers have been a contentious point in the past and as most HGVs are owned and operated by private contractors, it has always been claimed to be beyond the control of the quarry owners. I can see no mention of this type of noise in the application or its potential impact on surrounding receptors. I would like a guarantee that these reversing bleepers are quiet enough that the whole neighbourhood doesn't have to hear them and yet still have the effect they were designed for. I also do not want to be fobbed off with the excuse that they

are beyond Kilsarans control. BTW the bleepers on the dozers and excavators are no better and also need to be controlled.

I see from the report that my forest has the single largest DB reading of any receptor of 54DB. During the week, generally between the hours of 9am-1pm and 2pm -5pm, this forest is a place of part time work for me. But during the rest of the time, this becomes a place of quiet walks, nature viewing and contemplation for myself and many others. If as is proposed in the application during the hours of 8am-6pm Monday to Friday and 8am-2pm on 10 Saturdays a year this will overlap with times when my forest is being used as an amenity area (8-9am, 1-2pm, 5-6pm and 10 Saturdays 8-2pm). This is unacceptable with noise predicted at 54DB and as I have explained in earlier paragraphs, I fully think will be well beyond those levels during at least some periods. For this reason, I am insisting that all work within the site and deliveries to site only be allowed between the hours of 9am-1pm and 2pm-5pm Monday to Friday with no weekend and Bank holiday working.

During Febuary 2021 there was some activity/noise from the quarry. I investigated this by viewing from the high point on my land at the edge of the quarry cliff. Scrap metal was being broken down and removed by trucks. This seemed like good news to start but as has so often been the case, the noise could be heard from inside my highly insulated Passive standard house with triple glazed windows (R11) which was approximate 600m from where the works were happening. To make matters worse, work was happening after 6pm, even after 7pm, after 1pm on Saturdays and all day Sunday on at least one occasion. These times are outside the current allowable hours as set out in the current planning permission. This goes to show the complete disrespect that Kilsaran have for the local authority and more importantly to their neighbours. If this is the level of rule breaking that happens NOW while they are looking for the proposed permission, what are we to expect if permission is given for the development?

Material assets

11.50 Horticultural business is mentioned here but not in the air quality section. No consistency across the report.

11.51 Kilmacurragh quarry said to be inactive for 15 years. Although no extractive work has been happening here, there was extended filming in recent year, namely the “Vikings”. This type of industry is more in keeping with the Wicklow countryside than landfilling. If landfilling was operating at Ballinclare, with its corresponding noise and traffic, there is no chance of filming with that background noise thus eliminating any chance of such work occurring here again.

Kilmacurragh quarry with Vikings set and Ballinclare quarry in the right background in July 2016

When I mentioned the potential development and its negative impacts to a friend, they suggested selling up and moving away. Besides the fact that I would not be in an easy position to do that with all my business interests on the land and locally, I told them that the value of the property has no doubt already gone down with the mere proposal of the landfill and will probably drop further if permission is given.

Landscape

13.71 Landfilling deemed broadly to be the same as quarrying. Don't know what to say to that other than "its not"!

13.77 Apparently the quarry cannot be seen from the north. Although this is broadly true for the roads and houses, I most certainly can see it from my land which I and several others use daily for walks etc.

13.84 It is claimed that lighting will only be used during working hours in the winter when it is dark. In times past, there has been a glow above the quarry, visible from far and wide. There has always been to this day security lights on site which are on for all the hours of darkness. Can I ask that this security lighting stops, especially because the entire site is claimed to be security fenced as one of the first tasks.

13.86 Even though photos are attached to landscape study showing the view from many locations including Kilmacurragh, it states that very little of the quarry is visible from Kilmacurragh. This is clearly not true.

13.94 Claims of returning the site to preexisting landscape. The proposed final map shows three straight tree/hedge lines which look nothing like the pre quarry field boundary divisions. They are mapped out in the 1913 maps which were before any quarrying on this site and if it is to be filled to its original levels then these field boundaries need to be fully reinstated including banks and stone walls as most field boundaries also had, not just a handful of tree species as suggested.

13.95 States that vast majority of vegetation, trees and scrub will be retained and yet scrub clearance is one of the first things on the works program…..which is it and what are the details? I suggest that no clearance takes place as that is part of the natural restoration.

13.100 Cumulative affects of Ballynagran and Ballinclare (not to mention all the other facilities in the area) are considered small. If that is the true case, why are these not closer to the source of much of the material in or close to Dublin?

13.104 Do nothing sounds like a good option to me as it will naturally re-vegetate as suggested in this paragraph.

No mention made that the top of the quarry is partially visible from the M11 heading north at the Ballinameasda bends.

The north east side of the WCC yard which is between the L1113 and yard had huge quantities of soil added from the stripping bare of the quarry grounds. It is many meters above the original land level. This area is not within the marked redline of the quarry site. As to the ownership of this area, I am not sure but I strongly suspect it belongs to the quarry and not the council yard. If as is suggested in the application that this is a “restoration”, then why is this area excluded from the restoration of the quarry?

I also noted after the temporary closing of the quarry about 5 years ago that “inert material” was brought into the quarry grounds through the council yard and filled a natural wetland to over 3 meters. (south west of the council yard) There was a clear haulage route which can still be seen on Google earth imagery. I pointed this out in the public consultation but it was denied. I believe this was an illegal dump until I am proven wrong. I see from the final contour map that this area of infill will be removed but it still begs the question of why this was put here through an un-official entrance.

Looking west from the top of Carrigmore forest boundary showing quarry residues (10/6/21)

Same view with residues blotted out to show roughly how it could be with a small tidy up

Other notes

D05 What is a “suitable agricultural grass mix” as stated on this map? If it ends up being Italian rye grass or similar high output grass, then that would not have been part of the original vegetation species mix. I would suggest a native wildflower mix as being more appropriate.

D08 On this plan of the C+D shed, the outside measurements given are 36000 x 42000. I have to assume these are millimeters although it doesn’t state it. Multiplying these two figures together gives 1512m2 (assuming MM for first figures). In the centre of the plan, the floor area is given as 2160m2. That is a difference of 648m2. By any measure, this is a big difference equivalent to the footprint of about 3 standard houses. What is the correct size and why would an industrial development get away with such large mistakes. If I was building a house and details were out by even a single meter, then I would be in breach of planning. It also begs the question, how many other mathematical errors are in the report If I as a lay person, saw this simple mistake?

The quarry has basically been closed for the past 5 years due to finding of naturally occurring asbestos. As a resident beside this quarry, I have got used to the quiet, dust free and improving beauty and nature in the quarry. This is the new norm for the area and I don’t see why the application be on the basis of the current planning permission and the workings that went on there before its closure. This application should largely be based on the current situation of a quiet rural area. Why should people and the environment in the vicinity of this site be anymore OK with the proposal because of past activities? Have we no right to a quiet life?

After speaking with WCC and searching the planning files related to the current planning permission, I note that there is a requirement by Kilsaran to submit yearly environmental monitoring reports to include ground water, surface water, noise, ground vibrations, dust deposition and any breaches and complaints. I have found no such reports which is in breach of planning. I get that they have not been operating as a quarry during that period but see no reason why they should still not supply these reports. This is another sign that Kilsaran cannot be trusted or be taken seriously as a reputable company.

One of the part time businesses operating from my woods, is a Forest School for young children. To use this site, they need a clean, quiet period during working hours. If the proposed infill gets permission, the site will almost certainly become unsuitable due primarily to the noise but also to dust and potentially contaminated water in the Potters river. This is hardly acceptable that big business can simply make it impossible for another one to operate.

In the public consultation, I requested for monitoring of all truck movements be carried out automatically so that the residents and local authority wouldn’t have to police whether the designated haulage routes were being abided by. This was rejected in the application. I stand by my assertion that truck drivers will try and take the easiest/shortest route which may well be via the L1113. I suggest another method that this could happen as follows. The entrance to the landfill should have a slip road built such that only traffic to and from the TAP at the R772 junction can enter. Another slip road in the other direction (to L1113) would have a barrier/gate on it so that only local traffic can enter and leave by pre-arrangement and necessitate the opening of a gate/barrier.

In the event of permission given, a sign should be erected at or near the entrance to the site which would have details such as the broad plan for the site, maps and up to date contact information for viewing monitoring data and making complaints etc. I also strongly suggest that a "one stop shop website" available to anyone to access for the entire project. This would have all the planning details, timelines, environmental monitoring data, waste test data, complaints files, truck movements including where from, tonnage, registration number, type of material, test data, route taken and time stamps. As a resident that has lived with an active quarry, I know how inaccessible and difficult this sort of information is to find so would make this an absolute requirement of a planning permission.

Zero Carbon Community. As a consequence of the Ballynagran landfill and the community funds that were generated by it, a group called Ballynagran Zero Carbon was set up. Its main objective was to reduce and if possible eliminate the overall Carbon footprint of the community. The Ballinclare quarry is within the area of this community. The proposed development has huge carbon emissions mainly caused by the transport of the waste to the site but also the movement on site and of course C+D workings. In the climate section of the EIAR, calculations are done and concluded to be 0.0065% of Irelands total and thus deemed to be insignificant. I have had a climate scientist look at this figure and the calculations behind it and they found that they are based on very optimistic figures although without knowing where the conversion factors come from, it is very difficult to prove conclusively. He also pointed out that they are based on out of date figures and that as time goes on, the landfill will have a much greater % of Ireland's total. The Landfill, if it goes ahead in its present scale, will account for more that 90% of the total CO2 emissions within this community of about 600 houses . For that reason, this development is utterly not in keeping with the areas targets.

Conclusion

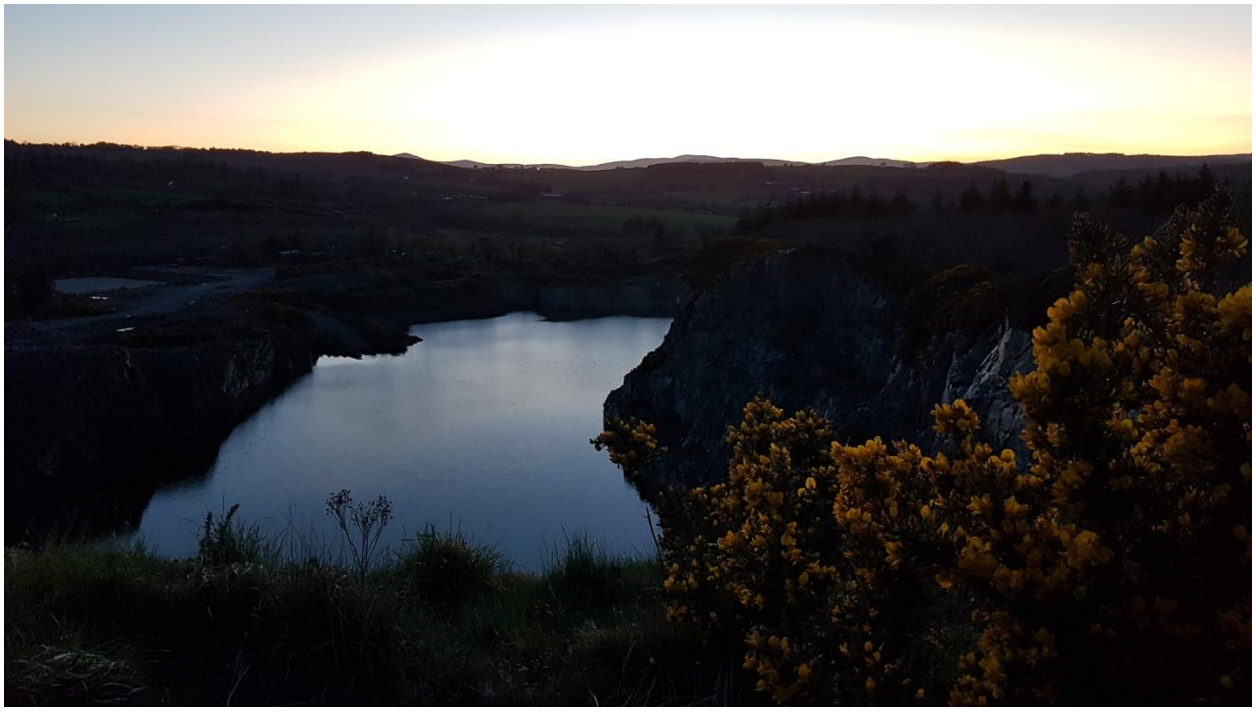
I am one of the closest residents of the landfill proposal and have a forest and several business interests on the land closest to it. I am 44 years of age and have lived with an active quarry for most of that time and had to tolerate nuisances such as noise, dust, vibrations, traffic and an ugly eye sore. During the last 5 years since it closed, I have enjoyed the quiet, dust and vibration free and much reduced traffic that has resulted. The quarry pit has filled up with water and I have watched in awe at the speed at which vegetation recovered and wildlife has moved in resulting in what is now more beautiful than ever before. In these enlightened times of mental health and appreciation of nature, I have increasingly appreciated my own place and that of the gradual rewilding of the quarry site. One of my favourite places to just sit and take in the sunsets or look at other aspects of nature is at the top of my land at the quarry's edge (view as shown in final photo). The proposal will bring back much of the noise, dust, traffic and disturbance for the next 20 years. The mere thought of this proposal stresses me out and I know I am not alone in having those feelings. It is claimed that the Biodiversity of the site will increase with the so called restoration but agricultural grassland is less diverse and less rich than much of the habitat that exists there now.

Although it never compensated for living next to a quarry, having one so nearby had one small advantage, ready access to free or cheep gravel, tarmac and concrete which are all very useful products on a farm. The new proposal has no such products that are of any use to me. For that reason and as

some compensation to me and those most affected by the development, I suggest a monetary fund be paid. Precedence for this has been made by the Ballynagran landfill facility and several others around the country and I don't see a reason why this cannot happen here also.

As there is very little can be done to mitigate noise generated from the landfill activities, I am insisting that the hours of operation be limited to that of my and most other peoples working hours so that during time off, we don't need to be still listening to its noise. The hours I'd like it restricted to are 9am-1pm and 2pm -5pm Monday to Friday and excluding all weekends and bank holidays. I will not accept any more hours than this.

The so called public consultation consisted of Kilsaran giving us an absolute bare essential idea of the proposed development and expected us to give opinions on that limited detail. I asked for an EIA report before my submission but none was given. In my submission, I asked for feedback and hoped for an actual discussion but again nothing. The next I heard was a phone call to TELL me the application was about to be lodged. This to me does not qualify as a public consultation. On reading the very long application, I saw the responses to our submissions and was surprised to find almost no concessions to any of our questions and requests. I have never objected to a planning application in my life and that includes previous ones for the Ballinclare quarry and the Ballynagran landfill. I always felt that the "not on my backdoor" attitude wasn't a good enough reason to oppose a business. However now that I have lived with these developments for the better part of my life and experienced quieter times of late, I've had enough. I think I have paid my dues to society and deserve to not have this development as is proposed on "my back door".



Sunset over quarry lake as seen in April 2021

Dear EPA.
Attached are a copy of my submission and report by Faith Wilson, Ecological Consultant to An Bord Pleanala regarding the Ballinclare Quarry Restoration Project by Kilsaran from 2021.
As I and everyone else in the community was not made aware of the Waste license application to the EPA by Kilsaran until a week ago, this is all I can furnish in a hurry. I will, if given time, be making another submission based on the actual waste license application. As there are many hundreds of pages to read, process and respond to, I cannot do this very quickly so would appeal for a minimum of two month to make a submission.

Christian Osthoff
27/10/2023
W0311-01 EPA045243

Faith Wilson
ECOLOGICAL CONSULTANT

Faith Wilson Ecological Consultant BSc (Hons) CEnv MCIEEM
Kestrel Ridge, Tigroney West, Avoca, Co. Wicklow

15th June 2021

Re.: Planning Application (Kilsaran) – in respect of Strategic Infrastructure Development application for a proposed 'Inert landfill and construction and demolition waste recovery facility at Ballinclare, Kilbride, Co. Wicklow'

To whom it may concern,

My name is Faith Wilson and I work as an independent ecological consultant based in County Wicklow.

I recently reviewed the planning application and associated files in relation to the Strategic Infrastructure Development application for a proposed 'Inert landfill and construction and demolition waste recovery facility at Ballinclare, Kilbride, Co. Wicklow made by Kilsaran Concrete to An Bord Pleanála (**Case reference: PA27.309991 and PC27.304735)** from an ecological perspective on behalf of Mr Christian Osthoff, Sundial House, Carrigmore, Glenealy, Co. Wicklow.

I also spent some time conducting a desk based review of relevant ecological studies that have been completed within the environs of the lands at Ballinclare, Kilbride, Co. Wicklow, of which there are many as outlined below.

I have personally conducted many ecological field surveys (both flora and fauna) on lands within the environs of the Ballinclare Quarry for the Irish State (National Parks and Wildlife Service and the Office of Public Works), the National Roads Authority, Wicklow County Council (the Local Authority), the Ballynagran Zero Carbon Community, The Heritage Council and the Forest Service.

These surveys, which have been for the purposes of both conservation and environmental impact assessment, include:

- The N11 Rathnew to Arklow Road Scheme (these included baseline surveys of terrestrial ecological habitats, mammals (including bats, otter, badgers and deer), amphibians and birds to inform the EIS for the road scheme),
- Detailed mammal surveys for badgers and otter for the N11 Rathnew to Arklow Road Scheme to inform detailed mitigation measures in relation to fencing, the provision of otter ledges, underpasses, protection of setts, etc.
- Four Season Bat Surveys conducted for the N11 Rathnew to Arklow Road Scheme to identify bat roosts (maternity, hibernation, transitional and night roosts) to inform detailed mitigation measures in relation to the demolition of buildings containing confirmed bat roosts, felling of trees identified as potential bat roosts, lighting design, bat derogation licences, landscaping proposals, erection of bat boxes, etc.
- Attendance during the stripping and demolition of buildings containing bats and felling of trees identified as potential bat roosts, conducted under the

requirements of the bat derogation licence issued by NPWS, as part of the pre-clearance contract for the N11 Rathnew to Arklow Road Scheme,
- Supervised erection of bat boxes as part of mitigation measures N11 Rathnew to Arklow Road Scheme,
- Surveying and monitoring over a three year period of bat boxes erected as part of mitigation measures N11 Rathnew to Arklow Road Scheme,
- I was peripherally involved and aware of the survey effort of the subsequent N11 Badger Project and have kept a keen interest in the results and findings of same,
- A Baseline Flora And Fauna Survey for a proposed Wind Turbine at Kilnamanagh More, Glenealy, Co. Wicklow in 2015,
- The Field Survey Of Rare, Threatened And Scarce Vascular Plants In County Wicklow, conducted for National Parks and Wildlife Service in 2007,
- Surveys of orchids in the general area conducted for the Orchid Ireland project for the Ulster Museum conducted in 2008 - 2010,
- Bat surveys conducted at the National Botanic Gardens Kilmacurragh on behalf of the Office of Public Works in 2020.
- Studies on great spotted woodpecker in County Wicklow, including a genetic study to determine their origins funded by the Heritage Council.

I have also designed and delivered biodiversity enhancements/habitat creation projects on the lands owned by the Osthoff family at Carrigmore and I have been familiar with the quarry site since 2004. These include:
- Carrigmore Native Woodland Scheme Ecological Survey & Management Plan prepared for the Forest Service in 2006,
- The creation of ponds and associated wetland habitats at Carrigmore, Glenealy, Co. Wicklow under the Biodiversity Fund 2007 and subsequent report prepared for the Heritage Council,

The results of this extensive body of ecological work and local knowledge of the area will be referred to, where relevant, in this submission on the proposed application.

The Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) have been reviewed as part of this ecological submission.

1 Project Description

Planning permission for a Strategic Infrastructure Development on an area of 32.5 hectares at this site at the Ballinclare and Carrigmore Townlands, Kilbride, Co. Wicklow is described in the site notice and accompanying documents (EIAR and NIS) as follows:

I. construction and operation of an inert landfill facility to backfill the existing quarry to original (pre-development) ground level using approximately 6,165,000 tonnes of imported inert waste and (non-waste) by-product, principally soil and stone. Selected uncontaminated, undisturbed, natural soil waste and/or by-product which conforms to an engineering specification will be re-used in the construction of the basal and side clay liners required for the inert landfill;

II. progressive restoration of the backfilled quarry to long-term grassland / scrub habitat, similar to that which existed prior to the quarry development;

III. development and operation of a construction and demolition (C&D) waste recovery facility at the pre-existing concrete blockyard area; and

IV. installation and operation of a soil washing plant at the former concrete / asphalt production yard to recover sand and gravel aggregate from soil / claybound waste.

The proposed development also provides for;

i. Continued use of existing site infrastructure and services including, site / weighbridge office, staff welfare facilities, wastewater treatment system, outbound weighbridge, garage / workshop, wheelwash, hardstand areas, fuel and water storage tanks to service the proposed development;

ii. Installation of a new weighbridge along the inbound lane of the quarry access road;

iii. Decommissioning and off-site removal of any remaining fixed plant, infrastructure and/or wastes associated with former site activities;

iv. Construction of an industrial shed (portal frame structure) for C&D recovery activities at the blockyard area;

v. Use of existing external paved area surrounding the proposed C&D waste processing shed as a hardstanding area for the external handling and storage of both unprocessed and processed C&D wastes;

vi. Construction of an on-site (passive) wetland treatment system and attendant drainage infrastructure to treat surface water run-off / groundwater collecting in the sump / floor of the quarry area during landfilling operations and any surface water run-off from the C&D waste recovery area prior to its discharge off-site;

vii. Re-use of an existing storage shed as a dedicated waste inspection and quarantine facility to inspect and store suspect waste consignments as required;

viii. Upgrading and ongoing maintenance of established internal haul roads across the application site;

ix. Temporary stockpiling of topsoil pending re-use as cover material for phased and/or final restoration of the inert landfill / backfilled quarry; and

x. Environmental monitoring of noise, dust, surface water and groundwater for the duration of the landfilling and C&D waste recovery activities and final restoration works and for a short period thereafter.

Planning permission is sought for a period of up to 20 years. The proposed development requires a waste licence from the Environmental Protection Agency.

2 General Observations

The description of the project as set out above in **Section 1** and throughout the EIAR and the NIS fails to capture and accurately describe one of the main activities required to enable the subsequent landfill to proceed.

This is the required dewatering of the quarry in advance of the development of the landfill, which is a significant activity and potential impact in itself. **This dewatering procedure (and the extent of same) is not listed in the project description which is therefore inaccurate and misleading.** Water levels in the quarry have significantly increased over time as can be seen on **Figures 1** and **2** below from Google Earth, which shows the development of a large water body within the quarry environs.

Figure 1. Ballinclare Quarry during previous operations under the ownership of SM Morris (Google Earth Imagery dated 4th June 2013).

This change in water levels is not obvious unless the quarry is accessed internally or viewed from the Osthoff lands at Carrigmore to the north.

Figure 2. Ballinclare Quarry showing the extent of water in 2021 (Google Earth Imagery dated 8th March 2021).

I note that for example in the inspectors report dated 20th, January 2020 that the An Bord Pleanala inspector Breda Gannon was unable to access the site at the time of inspection.

3 Water

Chapter 7: Hydrology and Hydrogeology of the EIAR is fundamentally out of date in this regard as this assessment consistently refers to the dewatering of the 'quarry sump'.

The area requiring dewatering is not mapped within **Chapter 7** and only a very small area as indicated by the text 'quarry sump' is shown on **Figure 7-2** of the EIAR as shown below in **Figure 3**. This is comparable to what was present in 2015 as shown on **Figure 4** below.

The ABP Inspector's report states in **Section 3.12** that a wetland area of approximately 3.8 ha will be provided to facilitate passive treatment of discharges prior to discharge to Potters River.
The NIS prepared for the application states that 'Based on the premise that the discharge flow rate is generated from a progressively capped inert landfill, the area of on-site wetland required at Ballinclare will be approximately 3.8 hectares in size, comprising two wetland treatment systems in parallel to ensure that maintenance of the system can be undertaken without disruption to the treatment process'.

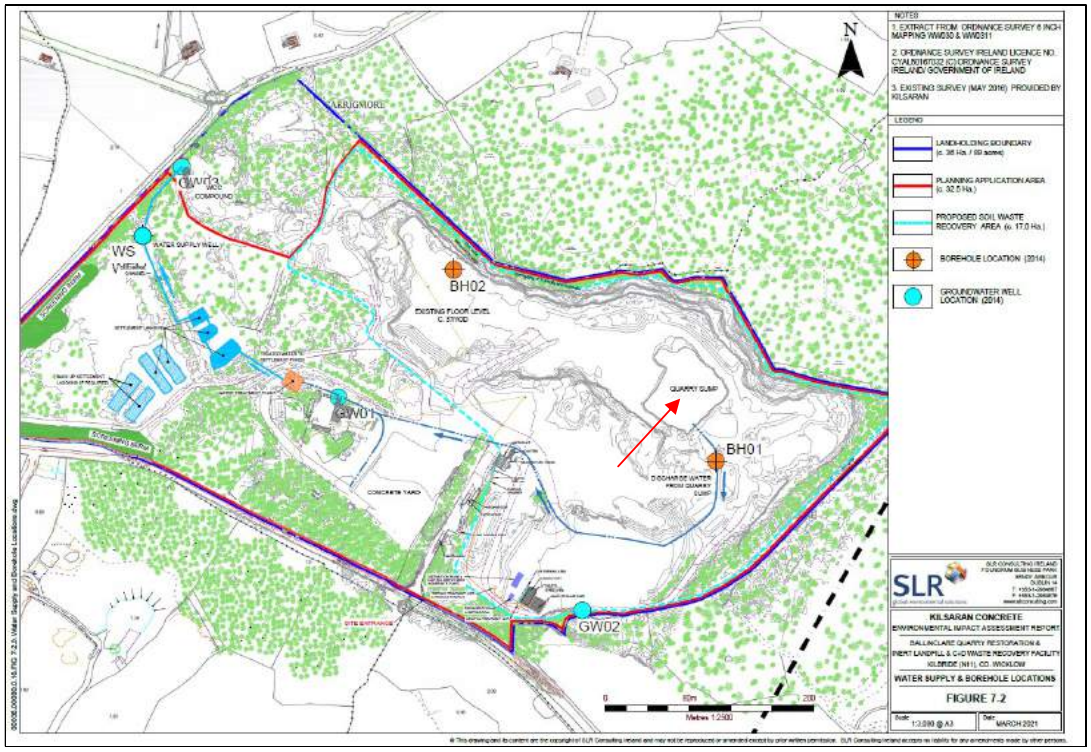


Figure 3. Quarry sump identfied in Figure 7-2 indicated by the red arrow.

It is unclear if the assessments conducted in **Chapter 7** of potential impacts on hydrology and hydrogeology are therefore reflective of the current conditions on the ground as shown on **Figure 5** in terms of the volumes of water requiring discharge, the time required for same, the proposed treatment system and the design of the wetlands.

It is also unclear if the mitigation measures proposed to ensure the protection of water quality in the environs of the quarry and at the discharge point to Potter's River are adequate to deal with the increased volumes of water requiring treatment.

Figure 4. Ballinclare Quarry showing the extent of the quarry sump in April 2015, which is comparable to that shown in Figure 7-2 in Chapter 7 of the EIAR (Google Earth Imagery dated 21st April 2015).

Figure 5. Ballinclare Quarry showing increased water levels in June 2018 (Google Earth Imagery dated 10th June 2018).

4 Quarry Restoration/Landscape

The project description describes the project as the 'progressive restoration of the backfilled quarry to long-term grassland / scrub habitat, **similar to that which existed prior to the quarry development**'.

The ABP Inspector's report states the following in **Section 3.4**.:

> 'The landfill development and the backfilling of the quarry will take place on a phased basis, working progressively from west to east. Restoration of the final landform will also be undertaken on an ongoing, progressive basis and will entail placement of cover soils and **seeding to establish a heathland/ grassland habitat similar to that which existed prior to quarrying'**.

The 'quarry restoration' plan is presented in **Chapter 2** and assessed in **Chapter 13** and the proposed landscape plan as shown in **Figure 2-4** is presented below in **Figure 6**.

Figure 6. Figure 2-4.0. Restoration Surface and Landscape Plan-D05.

No reference has been made to the known baseline habitat and botanical data that was available for the property from previous studies conducted as part of the planning application to extend the quarry in the mid-2000s to inform the habitat restoration plan and ecologically suitable species for same.

Chapter 13 Landscape suggests that:

> '13.94 The proposed development will alter the topography of part of the application site. However, the changes will return the site to a state similar to what it was like prior to any extraction works taking place (i.e. its former natural topography) and will thereby ultimately enhance the local landscape.
>
> The proposed development is therefore considered to be in compliance with Landscape Objective NH51'.

The landscaping design for the site **Figure 2-4.0.Restoration Surface and Landscape Plan-D05**, which purports to 'return the site to a state similar to what it was like prior to any extraction works taking place' has taken no cognisance of the publically accessible record of previous land use and field boundaries in the area prior to the quarry expansion.

These show an intricate mosaic of small fields, hedgerows, stone walls and rocky outcrops as evidenced by the Ordnance Survey Ireland mapping which is freely available online and is presented below[1] in **Figures 7, 8** and **9**.

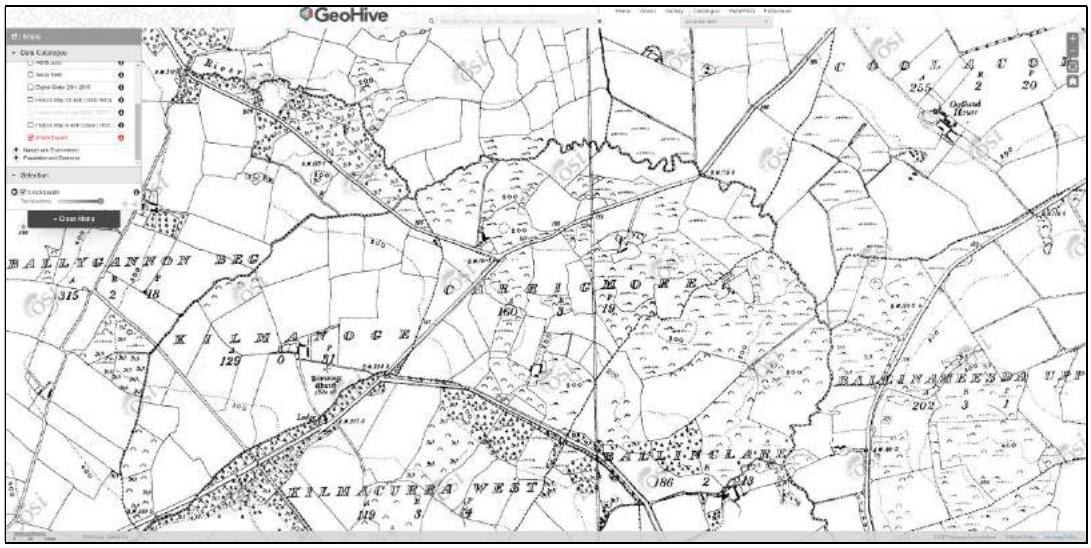


Figure 7. Ordnance Survey 6" mapping for Ballinclare and Carrigmore showing original field boundaries.

[1] Reproduced under licence from the Ordnance Survey Ireland CYAL50183710. © Ordnance Survey Ireland/Government of Ireland.

Figure 8. Ordnance Survey aerial photographs for Ballinclare and Carrigmore (dated 1995).

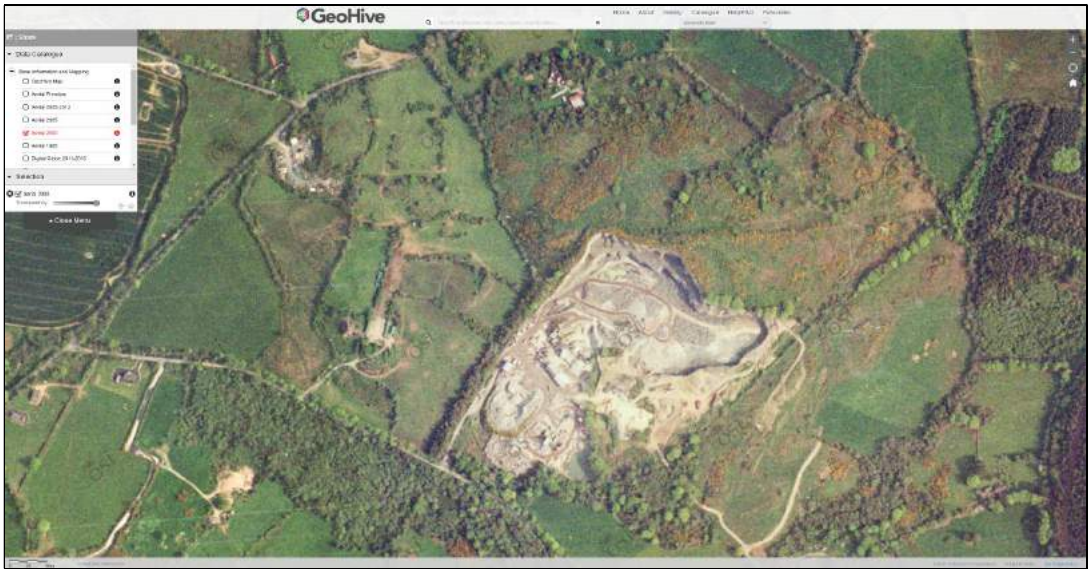


Figure 9. Ordnance Survey aerial photographs for Ballinclare and Carrigmore (dated 2000).

5 Scale of the Development

The Inspector's report states the following:

> '8.2 With a proposed annual intake 800,000 tonnes **the proposed development would be one of the largest restoration sites to be developed for this purpose both within the region and the State'**.

The inspector comments that 'This is a large site, **possibly the largest in the country, which if permitted has the potential to significantly contribute to national and regional deficits in capacity for recovery of C&D waste'.**

The end use for the quarry should therefore also **significantly contribute** to the **National Biodiversity Crisis declared by the Irish State** by having a detailed and conservation based restoration outcome informed by the existing ecology on the site and immediate environs, which has been largely ignored in the proposal.

6 Planning Context - the National Planning Framework - Ecology

The development should contribute substantially to the fulfilment of **National Policy Objective 59** in the **National Planning Framework** (not just National Strategic Outcome 9) and respond to the declared **National Biodiversity Action Plan** and **National Climate Change Plan** as well as the National Planning Framework.

National Policy Objective 59 in the National Planning Framework
Enhance the conservation status and improve the management of protected areas and protected species by:

- Implementing relevant EU Directives to protect Ireland's environment and wildlife;
- Integrating policies and objectives for the protection and restoration of biodiversity in statutory development plans;
- Developing and utilising licensing and consent systems to facilitate sustainable activities within Natura 2000 sites;
- Continued research, survey programmes and monitoring of habitats and species.

The destruction of the breeding site of a species listed under Annex I of the EU Birds Directive (the Peregrine falcon), is in contravention of page 126 of the *National Planning Framework,* which states that 'the Birds Directive contains protections for all birds, and they may only be disturbed or controlled subject to licence or derogation, as appropriate'.

This action, if permitted, also fails to meet **National Policy Objective 60** of the *National Planning Framework,* which is to:

> '*Conserve and enhance the rich qualities of natural and cultural heritage of Ireland in a manner appropriate to their significance*'.

The **National Planning Framework** also states;
The Environmental Impact Assessment Directive also requires that the direct and indirect significant effects of a project on biodiversity, with particular attention to species and habitats protected under the Birds and Habitats Directives are identified, described and assessed as part of the consent process.

The **County Development Plan** contains a number of **planning objectives**, which relate to **natural heritage**. *In its current form, containing a number of significant ecological gaps, and with limited ecological restoration objectives which lack the detail required for a successful outcome and implementation* ***the proposed planning application does not meet*** *the following objectives:*

NH6:
Ensure ecological impact assessment is carried out for any proposed development likely to have a significant impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Annex I habitats, or rare and threatened species including those species protected by law and their habitats. Ensure appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment.

NH8:
To protect non-designated sites from inappropriate development, ensuring that ecological impact assessment is carried out for any proposed development likely to have a significant impact on locally important natural habitats or wildlife corridors. Ensure appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment.

NH12:
To support the protection and enhancement of biodiversity and ecological connectivity within the plan area in accordance with Article 10 of the Habitats Directive, including linear landscape features like watercourses (rivers, streams, canals, ponds, drainage channels, etc), woodlands, trees, hedgerows, road and railway margins, semi-natural grasslands, natural springs, wetlands, stonewalls, geological and geo-morphological systems, features which act as stepping stones, such as marshes and woodlands, other landscape features and associated wildlife where these form part of the ecological network and/or may be considered as ecological corridors or stepping stones that taken as a whole help to improve the coherence of the Natura 2000 network in Wicklow.

7 Receiving Habitats and Protected Flora

The underlying geology of the site is diorite, which is an acidic igneous rock. Diorite is described as follows:

> 'Igneous rocks are either Acidic, intermediate or basic, depending on the amount of the elements of silica, SiO2, they contain. Acidic rocks such as

> granite, microgranite and rhyolite are rich in silica and contain the minerals quartz, feldspar and biotite among others. Basic rocks such as gabbro, dolerite and basalt are poor in silica and contain the minerals olivine, pyroxene, feldspar and/or quartz among others; they are also rich in the metals magnesium and iron and are often described as "mafic". The intermediate rocks include **diorite**, microdiorite and andesite[2]'.

The diversity of the native flora is recorded and documented on the lands at Ballinclare in previous planning application studies. It includes both calcareous and acidic grassland and heathland species reflective of the soils and underlying geology.

The quarry restoration proposals do not reflect this diversity and hence cannot be deemed ecological restoration.

The searches for protected, rare and notable floral species are inadequate and have failed to include consultation with National Parks and Wildlife Service for same. Such consultation would have confirmed the presence of populations of the Near Threatened Greater broomrape (*Orobanche rapum genistae*) from Carrigmore as was documented in The Field Survey of Rare, Threatened And Scarce Vascular Plants In County Wicklow, conducted for National Parks and Wildlife Service in 2007. The presence of this species on the lands at Carrigmore and suitable habitat for same within the quarry environs was notified to Kilsaran by Mr Osthoff in his submission as summarised in **Submission 14** in the **Ballinclare Inert Waste Facility Consultation Report**. **No consideration has been given to this Near Threatened red listed species[3] in the EIAR.**

Similarly the populations of the orchid Broad-leaved Helleborine (*Epipactis helleborine*) at Carrigmore, in the wet willow ash woodland opposite the quarry and along the roadside verges of the L1157 have not been identified or impacts on same considered.

Early-purple Orchid (*Orchis mascula*) is also recorded in the wet willow ash woodland opposite the quarry. This once widespread species has undergone severe declines in County Wicklow since the Flora of County Wicklow was published in 1950, with only a handful of known sites remaining extant within the county.
Table 5-9 Sources of Potential Impacts (Construction Phase) in the EIAR has identified Habitat loss, damage and fragmentation and Dust deposition as potential impacts on vegetation arising from the construction phase of the quarry, with the dust deposition noted as potential impact arising from the operational phase of the quarry in **Table 5-10**
Sources of Potential Impacts (Operational Phase). However the report states that:

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[2] https://geologyglasgow.org.uk/local-rocks/igneous-rocks/
[3] Wyse Jackson, M., FitzPatrick, Ú., Cole, E., Jebb, M., McFerran, D., Sheehy Skeffington, M. & Wright, M. (2016) *Ireland Red List No. 10: Vascular Plants*. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland.

> 'In accordance with guidance produced by the UK Institute of Air Quality Management (IAQM)17 an assessment of the effects of dust will normally only be required where an ecological receptor occurs within 50m boundary of the site or 50m of routes used by construction vehicles on public highways up to 500m from the site entrance'.

Potential impacts on these red list and locally scarce species need to be considered. **These include direct loss of habitat in the case of both Greater broomrape and Broad-leaved helleborine (through clearance of scrub and HGV impacts on roadside verges) and dust in the wider environs of the quarry need to be considered and mitigated against. An accurate survey of these plants needs to be completed to inform same.**

8 Badgers

The badger (*Meles meles*) is protected in Ireland under the Wildlife Acts (1972 – 2012) and is also protected at a European level under the protection under Annex III of the Bern Convention (1979) under which activities capable of causing local disappearance of, or serious disturbance to, populations are prohibited.

Badgers in the Kilbride area have been the subject of a unique and highly detailed tracking survey known as 'The M11 Badger Project' which was conducted over 6.5 years: before, during and after the M11 Rathnew to Arklow road upgrade. The study area is shown below on **Figures 10** and **11** and badgers have been recorded frequently in the environs of the Ballinclare Quarry. A large badger sett is located on the northern edge of the quarry, which has not been identified in the report with an additional sett present on the Osthoff lands. The location of these setts or their status has not been recognised or considered in the ecological study.

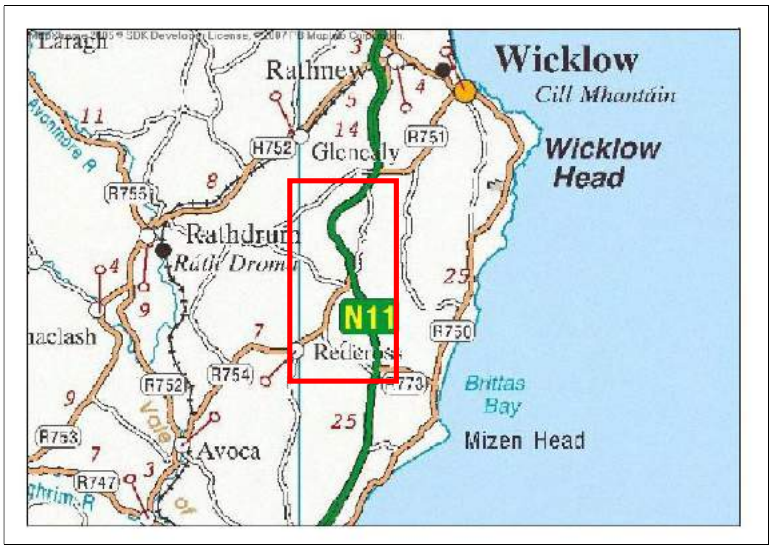

Figure 10. The M11 Badger Project Study Area (courtesy of the M11 Badger Project).

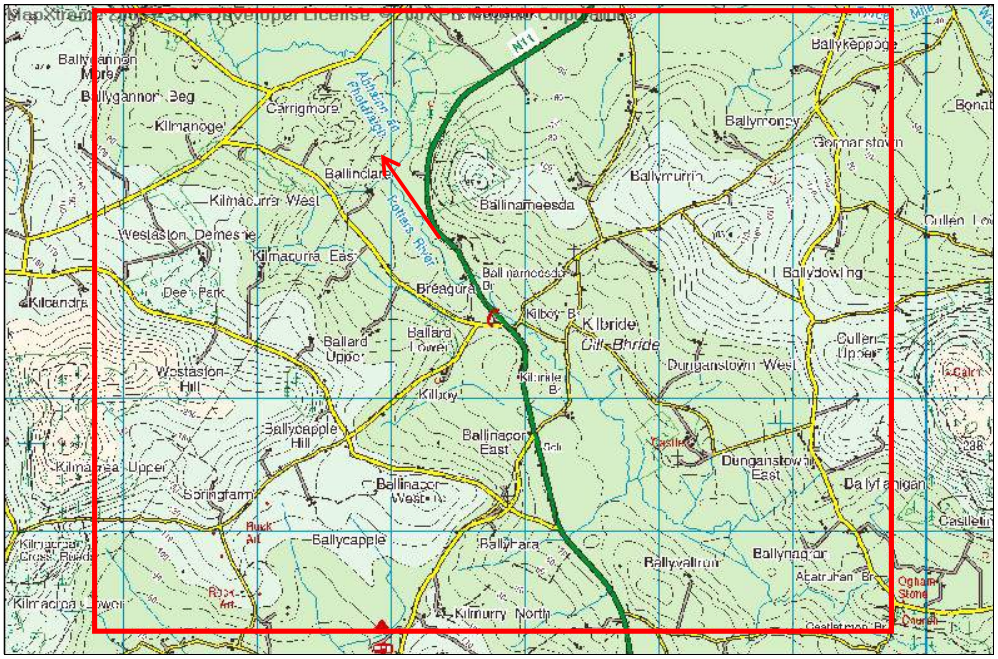

Figure 11. The Ballinclare Quarry at Kilbride is included within the study area (courtesy of the M11 Badger Project).

The results of 'The M11 Badger Project' were presented at the All Ireland Mammals Symposium Conference in 2019 - the conference proceedings are available online at https://www.tcd.ie/Zoology/assets/pdf/AIMS.pdf and the talk (**'Stop, Look and Listen. Badger road traffic accidents in the N11 study area 2010-2017'.** Enda Mullen, Teresa MacWhite, Peter Maher, Aoibheann Gaughran, David J. Kelly, Margaret Good, Nicola Marples) was also presented at the Irish Section CIEEM conference (https://cieem.net/wp-content/uploads/2019/03/Enda-Mullen_The-N11-Badger-Project-%E2%80%93-A-Mitigation-Case-Study.pdf)

Badger fatalities were recorded on local roads and on the old N11 prior to and during the works and whilst badger fatalities remained very low on the new M11 road following the implementation and success of the badger mitigation measures on the M11 badger fatalities on local roads (including the old N11) remains high as shown on **Figures 12** and **13**.

The results of the study were reported as part of a wider piece on road kill of wildlife in the Irish Times (28th November 2020):

> 'Wildlife plans for motorways are adopted by the National Roads Authority (NRA) and those for national and minor roads by Transport Infrastructure Ireland (TII). Many stem from EU directives on protecting habitats and rare species in conservation areas. And tracking patterns of roadkill help to put fences, trees, bridges and underpasses where they will save most wild lives.

Underpasses with side ledges have meant the most to mammals. Their use by badgers is shown in a study just published online, led by Aoibheann Gaughran, a Trinity College Dublin zoologist. Gaughran's team tracked the movements of a large population of badgers for more than six years before, during and after major road construction of the M11 in Co Wicklow. Tracking collars were fitted to 80 of them and cameras watched their use of the completed underpasses.

They were steered to these culverts by badger-proof fencing along the entire 16km of motorway. The badgers' territorial ranges stayed much the same – significant for concern about the spread of bovine TB – and the only two deaths to occur on the new road were from unfinished gaps in the fencing.

In the six years of the study, however, 49 badgers were killed on the N11 and minor roads in the area. At an average rate of 10 to 15 per cent a year of the badger population, this was 10 times the "relatively unimportant" roadkill rate suggested by an earlier University College Cork (UCC) survey of rural roads in 2012 and may reflect the growing intensity of Leinster's traffic'.

https://www.irishtimes.com/news/environment/another-life-badgers-once-again-top-list-of-roadkill-1.4412702

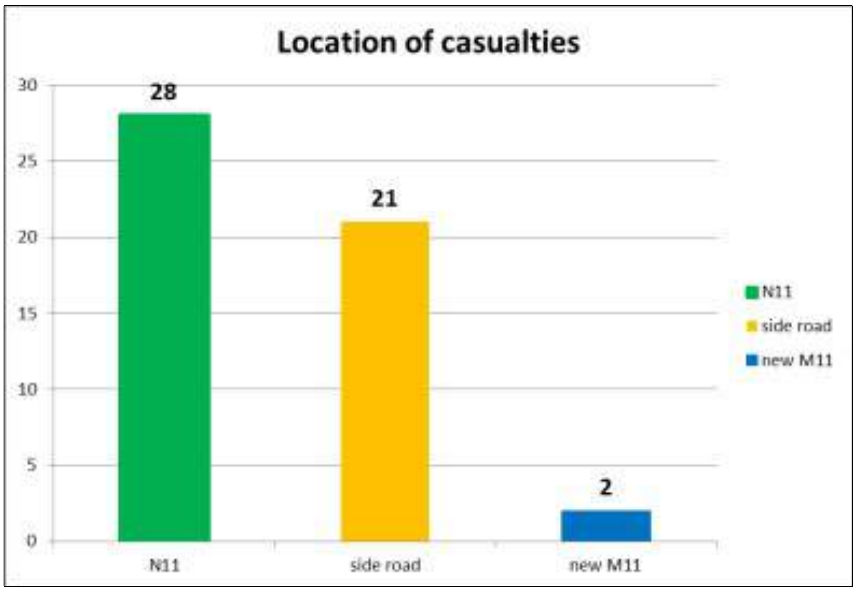

Figure 12. Road fatalities of badgers in the Kilbride Area (old N11, local side roads and M11) (courtesy of the M11 Badger Project).

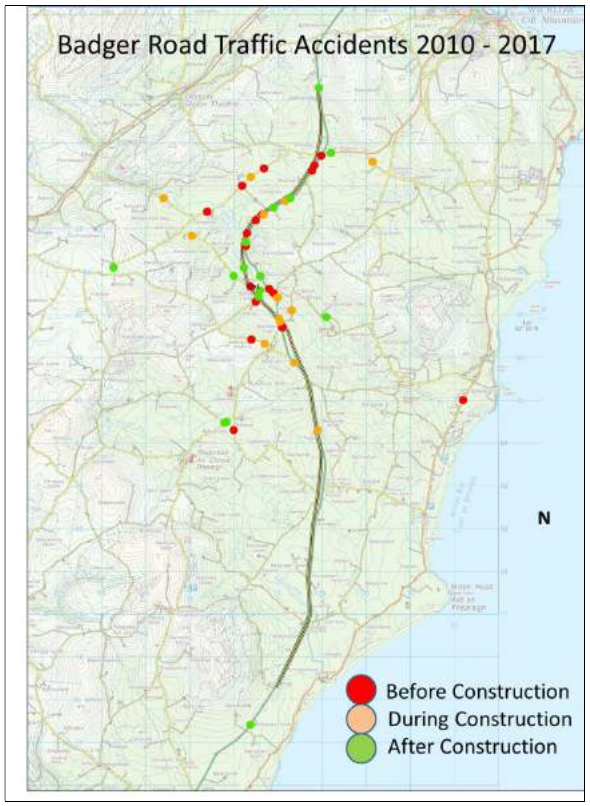

Figure 13. The M11 Badger Study – RTA data (courtesy of the M11 Badger Project).

Chapter 5 Biodiversity of the EIAR reports no evidence or signs of badgers in the immediate area of the quarry as presented in **Table 5-7 Identification and Evaluation of Species**:

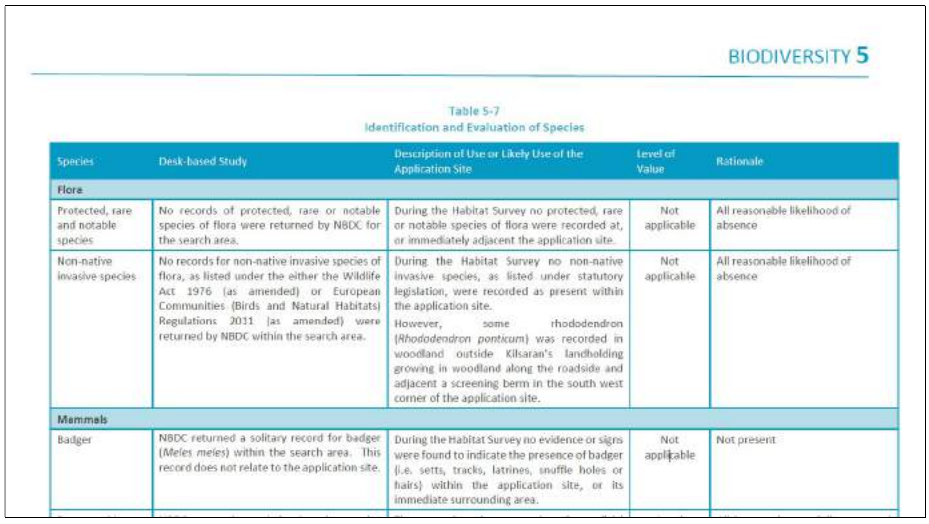

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Table 5-7
Identification and Evaluation of Species

Species	Desk-based Study	Description of Use or Likely Use of the Application Site	Level of Value	Rationale
Flora				
Protected, rare and notable species	No records of protected, rare or notable species of flora were returned by NBDC for the search area.	During the Habitat Survey no protected, rare or notable species of flora were recorded at, or immediately adjacent the application site.	Not applicable	All reasonable likelihood of absence
Non-native invasive species	No records for non-native invasive species of flora, as listed under the either the Wildlife Act 1976 (as amended) or European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) were returned by NBDC within the search area.	During the Habitat Survey no non-native invasive species, as listed under statutory legislation, were recorded as present within the application site. However, some rhododendron (*Rhododendron ponticum*) was recorded in woodland outside Kilsaran's landholding growing in woodland along the roadside and adjacent a screening berm in the south west corner of the application site.	Not applicable	All reasonable likelihood of absence
Mammals				
Badger	NBDC returned a solitary record for badger (*Meles meles*) within the search area. This record does not relate to the application site.	During the Habitat Survey no evidence or signs were found to indicate the presence of badger (i.e. setts, tracks, latrines, snuffle holes or hairs) within the application site, or its immediate surrounding area.	Not applicable	Not present

The badger assessment has therefore not been comprehensively researched either at desk level or completed in the field and the impact assessment conducted in relation to badgers cannot be deemed adequate or in line with best practice.

Potential impacts on badgers include:

- Disturbance
- Damage to setts
- Road traffic accidents

The potential impacts of 150 HGV trips per day using the proposed route shown on **Figure 14** on local badger populations in the area **has not been assessed or considered** in Chapter 5 of the EIAR and no detailed mitigation measures to avoid or ameliorate same have been proposed.

This is especially significant given the reduced numbers of HGV movements in the area since the closure of the quarry in 2016 which means that local fatalities of badgers are likely to be very high on what have in recent years been relatively peaceful/un-trafficked roads with low HGV numbers.

These averaged 31 in 2019 (33 in 2021 as per the projections according to Table 14-7. Traffic Flows Forecast 2021) and are set to **increase by a factor of 5** to 150 per day according to the data presented in Chapter 14 Traffic And Transportation of the EIAR).

Figure 14. Proposed haul route for the Ballinclare SID application utilising the old N11 and the L1157 as presented in Chapter 14.

Mitigation measures for the protection of badger setts on the edges of the quarry and badgers on the local road network surrounding the quarry need to be considered and detailed mitigation measures designed to reduce fatalities of local badger

populations, particularly given their inclusion on Annex III of the Bern Convention (1979).

These measures should be informed by what is a unique national dataset on badgers, their setts and their movements, which has been neither accessed nor considered, in the ecological impact assessment.

9 Bats

The Bat Conservation Ireland database contains records of bat roosts, the results of the dedicated EIS four season bat survey work conducted for the M11 Rathnew to Arklow motorway, other records made from ad hoc observations, car monitoring transect surveys, and the BATLAS 2010 project from the 10km square in which the Ballinclare Quarry is located (T28). These include records of the following species:

- Soprano pipistrelle (*Pipistrellus pygmaeus*)
- Common pipistrelle (*Pipistrellus pipistrellus*)
- Unidentified pipistrelle (*Pipistrellus* spp.)
- Daubenton's bat (*Myotis daubentonii*)
- Leisler's bat (*Nyctalus leisleri*)
- Natterer's bat (*Myotis nattereri*)
- Whiskered bat (*Myotis mystacinus*)
- Brown long-eared bat (*Plecotus auritus*)
- *Myotis* sp.

All bats, and their roosts are legally protected under both national and European legislation in Ireland.

Wildlife Act 1976

In the Republic, under Schedule 5 of the Wildlife Act 1976, all bats and their roosts are protected by law. It is unlawful to disturb either without the appropriate licence. The Act was amended in 2000.

EU Habitat and Species Directive

The EU Directive on the Conservation of Natural habitats and of Wild Fauna and Flora (Habitats Directive 1992), seeks to protect rare species and their habitats, including all species of bats recorded in Ireland which are listed on Annex IV.

Bern and Bonn Convention

Ireland has also ratified two international conventions, which afford protection to bats amongst other fauna. These are known as the 'Bern' and 'Bonn' Conventions.

The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1982), exists to conserve all species and their habitats, including bats.

The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979, enacted 1983) was instigated to protect migrant species across all European boundaries, which covers certain species of bat.

The principal pressures on Irish bat species have been identified as follows:

- urbanized areas (e.g. light pollution);
- bridge/viaduct repairs;
- pesticides usage;
- removal of hedges, scrub, forestry;
- water pollution;
- other pollution and human impacts (e.g. renovation of dwellings with roosts);
- infillings of ditches, dykes, ponds, pools and marshes;
- management of aquatic and bank vegetation for drainage purposes;
- abandonment of pastoral systems;
- speleology and vandalism;
- communication routes: roads; and
- inappropriate forestry management.

Those of relevance to this application are highlighted in red above.

There are a number of confirmed bat roosts on the Osthoff lands in various buildings on the property, including both maternity and hibernation roosts, and several bat boxes erected at the Osthoff lands at Ballinclare as part of the mitigation measures for the N11 Rathnew to Arklow road scheme are within close proximity to the quarry. These have supported roosting bats. Detector surveys conducted over two nights in June 2021 with a number of bat detectors including an Echometer Touch Pro, Bat Box III and Pettersson Heterodyne Detectors confirmed four species of bats foraging along the shared boundary of the property with the quarry (**Figure 15**). These were:

- common pipistrelle,
- soprano pipistrelle,
- Leisler's bat, and
- Daubenton's bat.

Figure 15. Bat activity on the northern edge of the flooded quarry in June 2021.

The flooded quarry at Ballinclare currently forms the largest waterbody in T28. It was not mapped as such (unlike the neighbouring Kilmacurragh Quarry) during the Wicklow Wetland Surveys in 2011 and 2012 as the quarry was operational at that time and the habitat had not formed. It is therefore not included in the Wetland Map of Ireland as a wetland habitat (**Figure 16**).

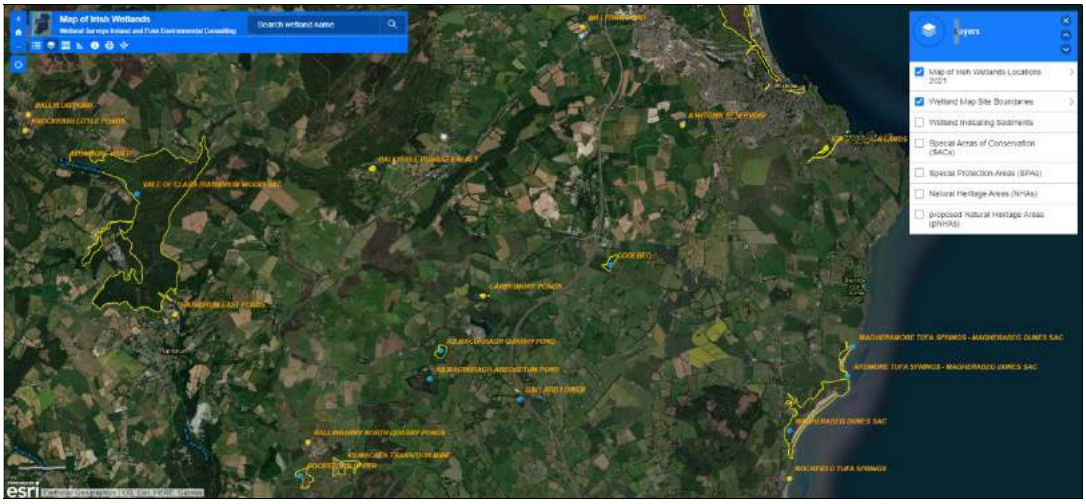


Figure 16. Waterbodies and wetland habitats in this part of Wicklow (Source: Map of Irish Wetlands).

A simple visual inspection of the environs of the Ballinclare Quarry has identified a large number of potential roosting locations, particularly for crevice dwelling bats in cracks and crevices in the quarry face. These offer potential for hibernating bats.

The adjoining broad-leaved woodland habitats at Carrigmore coupled with the feeding and foraging habitat provided by the large body of open water and the concomitant invertebrate populations associated with same provides a rich foraging ground for bats.

No bat activity surveys have been completed as part of the application and the assessment does not offer any mitigation proposals for same.

The bat assessment has not been comprehensively researched with no field surveys consisting of bat detector/remote monitoring of bat activity completed particularly in relation to potential roosting for crevice dwelling species or hibernation sites.

Chapter 5 Biodiversity of the EIAR reports in **Table 5-7 Identification and Evaluation of Species** the following for bats:

Mammals				
Badger	NBDC returned a solitary record for badger (*Meles meles*) within the search area. This record does not relate to the application site.	During the Habitat Survey no evidence or signs were found to indicate the presence of badger (i.e. setts, tracks, latrines, snuffle holes or hairs) within the application site, or its immediate surrounding area.	Not applicable	Not present
Bat assemblage	NBDC returned records for three bat species within the 2km search area including Daubenton's bat (*Myotis daubentonii*), Leisler's bat (*Nyctalus leisleri*), pipistrelle (*Pipistrellus sensu lato*), soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared bat (*Plecotus auratus*) from the 2km search area. None of these records relate to the application site itself but roosts for brown long-eared bat, Daubenton's bat, Leisler's bat and soprano pipistrelle have all been recorded in buildings within a 1km radius of Ballinclare Quarry.	The quarry faces have a number of superficial cracks but no obvious significant fissures and crevices which are likely to be used by bats for roosting purposes. All of the existing buildings and structures within the quarry site are considered to have negligible bat roosting potential due to their construction and current condition. During an inspection of the buildings during the Habitat Survey no evidence was found to suggest bats have used, or are currently using these structures for roosting purposes (i.e. droppings, urine staining, scratch marks and feeding remains). The majority of trees within the quarry site are assessed as having negligible suitability for roosting bats due to their age and condition with no obvious features offering bat roosting potential (i.e. holes and cavities, cracks and splits in major limbs, loose bark, ivy cover and dense epicormic growth). However, some of the mature oaks present in the WN1 woodland to the east of the quarry entrance are assessed as having low to moderate suitability and unlikely to support a roost of high conservation status in accordance with the current published criteria by the Bat Conservation Trust (BCT) guidelines[6]. The application site is assessed as providing low to moderate habitat suitability for commuting and foraging bats that is well connected to the wider landscape.	Local (higher)	All bat species are fully protected under the Wildlife Act 1976 (as amended) and the EC (Birds and Natural Habitats) Regulations 2011 (as amended). Site unlikely to support any bat roosts of high conservation status. Site lies within the core sustenance zone (CSZ) of at least four species of bats with recorded roosting locations in proximity of Ballinclare Quarry. However, the application site is unlikely to be important or critical to any particular species of bat, or for maintenance of the local population status of any bat species given the alternative habitat with foraging and commuting suitability for bats in the context of the surrounding landscape.

Chapter 5 Biodiversity of the EIAR states that the development of the quarry will not result in the loss of any known feature used by bats or with potential to support roosting bats as presented in **Table 5-11 Assessment of Effects on Identified and Relevant Important Ecological Features**:

Impact	Assessment of Effects	Significance of Impact Before and After Mitigation (Residual Impact)
Bat Assemblage		
Habitat loss, damage and fragmentation	<u>Assessment of Effects</u>: The construction and operation of the inert waste **management** facility and **the** ongoing landfill **and recovery** activities at the quarry will not result in the loss of any known feature used by bats or with potential to support roosting bats. The damage and disturbance of the existing low quality foraging habitat within the application site during the operation of the inert waste facility is not likely to result in the loss of any species of bat given the availability of higher quality habitats throughout the wider surrounding area. The operation of the inert waste facility and ongoing landfill activities at the quarry is not likely to result in the loss of critical or important foraging habitat or cause any fragmentation of commuting habitat within the CSZ for bats where roosts, identified in the wider surrounding area, will be affected. The construction of the 3.8 hectare water treatment wetland will result in the establishment of a significant area of high quality bat foraging territory, with the potential to benefit local bat populations. <u>Mitigation</u>: No specific ecological mitigation is required as impact is assessed as not significant. A minor positive residual impact is anticipated as a result of the creation of a large area of high quality foraging habitat for bats, due to the creation of the water treatment wetland.	Not significant (minor positive)

The impact assessment conducted in relation to same cannot therefore be deemed adequate or in line with best practice as the current proposals for the landfill will result in the losses of these potential roosting locations and loss of feeding areas

over the largest area of open freshwater habitat for bats in this part of the county. This needs to be addressed and rectified and sufficient information gathered to determine if a bat derogation licence is required for the proposal.

10 Amphibians

Chapter 5 Biodiversity of the EIAR reports in **Table 5-7 Identification and Evaluation of Species** the following for amphibians:

Amphibians				
Common frog	NBDC returned no records for common frog (*Rana temporaria*) within the search area.	During the Habitat Survey, common frog tadpoles were recorded in the settlement lagoons and the other large pond in the western part of the application site. At this location these waterbodies are surrounded by high quality terrestrial habitat for common frog. No evidence of common frog was found in the main part of the quarry where the breeding and terrestrial habitat for this species is assessed as poor.	Local (lower)	Protected under the Wildlife Act 1976 (as amended). A typically common and widely distributed species in Ireland and Co. Wicklow.
Smooth Newt	NBDC returned no records for smooth newt (*Lissotriton vulgaris*) within the search area.	During the Habitat Survey smooth newt adults were recorded in the settlement lagoons and all other ponds in the western part of the application site. At this location, these waterbodies are surrounded by high quality terrestrial habitat for smooth newt.	County	Protected under the Wildlife Act 1976 (as amended). A species widely distributed throughout Ireland but not having been recorded in large parts of Co. Wicklow.

Species	Desk-based Study	Description of Use or Likely Use of the Application Site	Level of Value	Rationale
		No evidence of smooth newt was found in the main part of the quarry, where the breeding and terrestrial habitat for this species is assessed as poor. Based on the recorded evidence of smooth newt during the Habitat Survey, it is estimated that the application site is likely to support an exceptional population size class (>100 individuals).		A species listed as being of importance in the Wicklow Biodiversity Action Plan 2010-2015 and which is likely to have an exceptional population size class at this location.

The creation of the wetland water treatment area will result in the removal of seven of the pre-existing settlement lagoons which support a population of common frog and smooth newt. These have been present in the quarry for many years as shown on **Figure 17**.

There are discrepancies between the habitat map presented in the EIAR (**Figure 19**) and the ground conditions visible from within the site as seen on aerial photographs (**Figure 18 and 20**) – two mapped wetland habitats within the report are no longer extant.

It is unclear if these two wetlands supported breeding amphibians and if they were temporal in nature or have been destroyed and if any mitigation measures were implemented to protect same.

Figure 17. Ballinclare Quarry showing wetland habitats present whilst under the ownership of SM Morris (Google Earth Imagery dated 4th June 2013).

Figure 18. Nine wetland habitats are visible within Ballinclare Quarry in April 2019 just before the habitat surveys were first conducted (Google Earth Imagery dated 22nd April 2019).

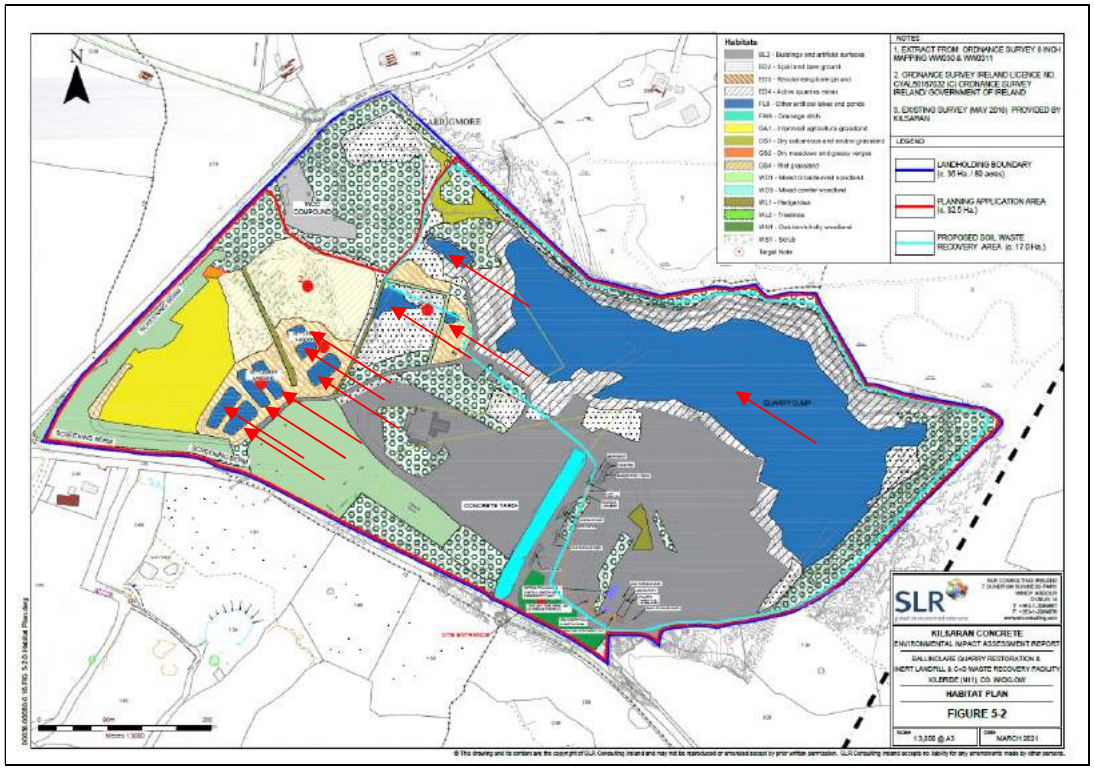


Figure 19. Figure 5-2 showing twelve wetland habitats mapped within Ballinclare Quarry (dated March 2021).

No detailed proposals have been developed to ensure the protection of these amphibian wetlands during the works, the safe and orderly destruction of their current breeding grounds and their translocation to either extant wetlands or newly created amphibian ponds. These works have been described in a general way in the EIAR as follows:

> 'Translocation of the smooth newt population to the suitable already existing on-site wetland habitats. Creation of two additional permanent bodies of standing water and their establishment and planting as amphibian breeding ponds to replace the water settlement lagoons removed during construction of the wetland will also mitigate the impacts of breeding habitat loss. The water treatment wetland is to be created in two sections, to permit maintenance and management. One amphibian pond should be created in association with each section of the wetland. The ponds should each have a surface area of at least 150m2, with shallow sloping edges to encourage emergent vegetation, and a deeper area that will remain permanently wet and discourage colonisation by reeds or reedmace (approximately 1m to 1.5m deep)'.

Figure 20. Nine wetland habitats are visible within Ballinclare Quarry in March 2021 (Google Earth Imagery dated 3rd March 2021).

No licences have been provided by National Parks and Wildlife Service for the removal and translocation of these protected species and subsequent destruction of their breeding sites as part of the planning applications.

No detailed drawings have been provided of the amphibian breeding ponds in terms of their design and location, which require the retention of vegetation both around them and retained vegetation to provide ecological linkages to other refugia in the landscape. The amphibian breeding pond designs should also include a hibernaculum.

11 Peregrine Falcon & other avifauna

The peregrine falcon (*Falco peregrinus*) is protected in Ireland under the Wildlife Acts (1972 – 2012) and is protected at a European level under Annex I of the EU Birds Directive (EU Directive 79/409), under Annex I of the Bern Convention (1979), Annex II of the Bonn Convention and under CITES.

Peregrine falcons have nested on the quarry cliffs at Ballinclare for over twenty years. Quarries in Leinster form very important nesting sites for Peregrine falcons[4] and the study found that in Leinster, the quarry-nesting component accounts for almost 50% (38 out of 77) of the population as natural cliff sites are rare and localized

[4] Moore, N.P., Kelly, P.F. Lang, F.A., Lynch, J.M. and S.D. Langton (1997). The Peregrine *Falco peregrinus* in quarries: current status and factors influencing occupancy in the Republic of Ireland. Bird Study (1997) 44, 176-181.

in eastern Ireland. Peregrine falcons are well known to nest successfully in active quarries (e.g. Ruddock & Whitfield, 2007) with high levels of disturbance[5]. The Peregrine falcons at Ballinclare have been the subject of detailed ringing and nest monitoring studies over many years as part of annual monitoring conducted by National Parks and Wildlife Service and the Irish Raptor Study Group.

The scope of works for the surveys is set out in **Table 5-1 Summary of Ecological Scope of Works and Methods Used** in **Chapter 5 Biodiversity** of the EIAR. No dedicated bird surveys were completed – the surveys were very much habitat based although the scope of works did suggest that additional assessments of habitats for evidence of, or their potential to support protected, rare or notable species (including mammals, birds, reptiles, amphibians and invertebrates) and any other important ecological feature that may require mitigation or an ecologically sensitive design in respect of the proposed development were completed.

Table 5-1
Summary of Ecological Scope of Works and Methods Used

Study	Scope of Work	Study Area	Methodology
Desk-based study	Statutory and non-statutory designated sites	All sites within a 2km radius of the application site	Web-search including the National Parks and Wildlife Service (NPWS) interactive mapping facility (http://webgis.npws.ie/npwsviewer/).
	Protected, rare and notable species	2km grid squares encompassing the application site (grid square T28P)	Web-search including information held by the National Parks and Wildlife Service (NPWS) (www.npws.ie) and the National Biodiversity Data Centre (NBDC) (www.biodiversityireland.ie)
Habitat Survey	To record and classify the habitat-types and appraise on the likely presence/absence of protected species	Application site	Initial site visit and walkover survey by an ecologist from SLR on 30th May 2019, with a follow up site visit on 29th May 2020. Standard approach to the classification and mapping of habitats in accordance with Fossitt (2000)[5] to Level 3 and target notes where applicable to describe any feature of particular ecological interest. Extension of Habitat Survey method to include an assessment of habitats for evidence of, or their potential to support protected, rare or notable species (including mammals, birds, reptiles, amphibians and invertebrates) and any other important ecological feature that may require mitigation or an ecologically sensitive design in respect of the proposed development.

Eighteen species of birds were recorded within the environs of the quarry as presented in **Appendix 5-B. Summary of Birds Recorded During Habitat Survey (May 2019).**

Scientific Name	Common Name	Annex I EU Birds Directive	Red List	Amber List
Anas platyrhynchos	Mallard	-	-	-
Columba palumbus	Woodpigeon	-	-	-
Corvus cerone cornix	Hooded Crow	-	-	-
Corvus frugilegus	Rook	-	-	-
Corvus monedula	Jackdaw	-	-	-
Corvus monedula	Jackdaw	-	-	-
Cyanistes caeruleus	Blue Tit	-	-	-
Erithacus rubecula	Robin	-	-	✓
Falco peregrinus	Peregrine	✓	-	-
Fringilla coelebs	Chaffinch	-	-	-
Gallinula chloropus	Moorhen	-	-	-
Garrulus glandarius	Jay	-	-	-
Hirundo rustica	Swallow	-	-	✓
Motacilla alba	Pied Wagtail	-	-	-
Parus major	Great tit	-	-	-
Sturnus vulgaris	Starling	-	-	✓
Troglodytes	Wren	-	-	-
Turdus viscivorus	Mistle Thrush	-	-	✓
Turdus merula	Blackbird	-	-	-

[5] Ruddock M. & Whitfield D.P. (2007). A Review of Disturbance Distances in Selected Bird Species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage.

Chapter 5 Biodiversity of the EIAR reports in **Table 5-7 Identification and Evaluation of Species** the following for **Peregrine falcon**:

Birds				
Bird assemblage	NBDC returned records for three species of birds for the search area. None of these species are listed under Annex I of the EU Birds Directive.	The habitats present in the application site provide opportunities for a range of birds associated woodland, lowland farmland, permanent pastures, open water and quarries. During the Habitat Survey a total of 19 species of birds were recorded visually and/or aurally at and in the vicinity of the application site. Of the species recorded only one is listed under Annex I of the EU Birds Directive, namely peregrine falcon (*Falco peregrinus*), but was not recorded as breeding at the time of the Habitat Survey. None of the bird species recorded are red listed[7] but three are amber listed[8] Birds of Conservation Concern in Ireland (BoCCI)[9].	Local (lower)	Protected under the Wildlife Act 1976 as amended by the Wildlife (Amendment) Act 2000. The application site provides breeding and foraging opportunities for a range of typically common and widespread species but is not likely to be important or critical for any particular individual species or local populations of birds given the availability of alternative habitat in the wider surrounding area.

Chapter 5 of the EIAR states that the site surveys consisted of a walkover survey of the quarry conducted on 30th May 2019, with a follow up site visit on 29th May 2020.

There was no dedicated Peregrine survey conducted despite the presence of Peregrine, a legally protected species, being recorded during the 2019 visit.
A detailed Peregrine falcon breeding survey should have been commissioned on foot of same to determine if Peregrines were nesting in the survey and consultation with National Parks and Wildlife Service would have confirmed that this was a traditional nesting site for the species.

The recommended methodology for Peregrine surveys[6] is as follows:

Visit 1	March to early April	To check for occupancy. If information from previous year(s) is available nesting territories where peregrines lay earlier or have poor breeding success should be visited first
Visit 2	Late March to early May	To locate active eyries (incubating birds). Peregrines in montane nesting territories and may not lay until early May
Visit 3	Late May to mid-June	To check for young and/or for evidence of breeding if no signs were seen on previous visits
Visit 4	Mid-June to early July	To check for fledged young

No such survey has taken place.

<u>Legislation in Relation to Peregrine Falcon</u>

Wildlife Act 1972
With regard to the protection of wild bird species, section 22 of the 1976 Act makes it an offence to hunt a protected wild bird, injure a protected wild bird otherwise than while hunting it, **willfully take or remove the** eggs or **nest of a protected wild bird**, **willfully destroy**, injure or mutilate **the** eggs or **nest of a protected wild bird**, and to

[6] Hardy J., Crick H., Wernham C., Riley H., Etheridge B. & Thompson D. (2013). Raptors. A field guide for surveys and monitoring. Third Edition. The Stationery Office, Edinburgh.

willfully disturb a protected wild bird on or near a nest containing eggs or unflown young.

The Birds Directive (Directive 2009/147/EC) on the conservation of wild birds
The EU Birds Directive is implemented in Ireland, *inter alia*, under the Wildlife Act. Under the terms of the Directive, all Member States of the EU are bound to take measures to protect all wild birds and their habitats.

"(6) The measures to be taken must apply to the **various factors which may affect the numbers of birds**, namely the repercussions of man's activities and in particular the **destruction** and pollution **of their habitats**, capture and killing by man and the trade resulting from such practices; the stringency of such measures should be adapted to the particular situation of the various species within the framework of a conservation policy.

(7) Conservation is aimed at the **long-term protection** and management of natural resources as an integral part of the heritage of the peoples of Europe. It makes it possible to control natural resources and governs their use on the basis of the measures necessary for the maintenance and adjustment of the natural balances between species as far as is reasonably possible.

(8) The **preservation, maintenance or restoration of a sufficient diversity and area of habitats is essential to the conservation of all species of birds**. Certain species of birds should be the subject of special conservation measures concerning their habitats in order to ensure their survival and reproduction in their area of distribution. Such measures must also take account of migratory species and **be coordinated with a view to setting up a coherent whole**".

Article 1 of the Directive states:
1. This Directive relates to the conservation of all species of naturally occurring birds in the wild state in the European territory of the Member States to which the Treaty applies. It covers the **protection,** management and control **of these species** and lays down rules for their exploitation.

2. It shall apply to birds, their eggs, nests and habitats.

Article 3 of the Directive states:
1. In the light of the requirements referred to in Article 2, Member States shall take the requisite measures to preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Article 1.

2. The preservation, maintenance and re-establishment of biotopes and habitats shall include primarily the following measures:

a) creation of protected areas;

b) upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones;
c) re-establishment of destroyed biotopes;
d) creation of biotopes.

Article 5 of the Directive states:
Without prejudice to Articles 7 and 9, Member States shall take the requisite measures to establish a general system of protection for all species of birds referred to in Article 1, prohibiting in particular:

(a) deliberate killing or capture by any method;
(b) deliberate destruction of, or damage to, their nests and eggs or removal of their nests;
(c) taking their eggs in the wild and keeping these eggs even if empty;
(d) deliberate disturbance of these birds particularly during the period of breeding and rearing, in so far as disturbance would be significant having regard to the objectives of this Directive;
(e) keeping birds of species the hunting and capture of which is prohibited.

Article 9 of the Directive states:
1. Member States may derogate from the provisions of Articles 5 to 8, where there is no other satisfactory solution, for the following reasons:

(a) - in the interests of public health and safety,
- in the interests of air safety,
- to prevent serious damage to crops, livestock, forests, fisheries and water,
- for the protection of flora and fauna;
(b) for the purposes of research and teaching, of re-population, of re-introduction and for the breeding necessary for these purposes;
(c) to permit, under strictly supervised conditions and on a selective basis, the capture, keeping or other judicious use of certain birds in small numbers.

2. The derogations referred to in paragraph 1 must specify:

(a) the species which are subject to the derogations;
(b) the means, arrangements or methods authorised for capture or killing;
(c) the conditions of risk and the circumstances of time and place under which such derogations may be granted;
(d) the authority empowered to declare that the required conditions obtain and to decide what means, arrangements or methods may be used, within what limits and by whom;
(e) the controls which will be carried out.

3. Each year the Member States shall send a report to the Commission on the implementation of paragraphs 1 and 2.

4. On the basis of the information available to it, and in particular the information communicated to it pursuant to paragraph 3, the Commission shall at all times

ensure that the consequences of the derogations referred to in paragraph 1 are not incompatible

European Communities (Birds and Natural Habitats) Regulations 2011
Regulation 27(4)(b) of the European Communities (Birds and Natural Habitats) Regulations 2011 requires the planning authority to "strive" to avoid deterioration and pollution to Annex I protected habitats that occur outside of designated Special Areas of Conservation (transposing the Habitats Directive) and habitats supporting Annex I protected bird species outside of Special Protection Areas (transposing Article 4.4 of the Birds Directive).
A Review of the Derogation Process under Article 9(1)(a) of the EU Birds Directive was conducted in 2018 for National Parks and Wildlife Service by Aniar Consulting[7].

Peregrine falcon was not a species considered as part of this 2018 review. **The deliberate destruction of, or damage to, a traditional nesting site of this protected species (as prohibited under Article 5) for the purposes of a commercial development, would not meet the criteria for a derogation under Article 9.**

Article 9 allows Member States to derogate from the basic prohibitions listed above provided ALL three following conditions are fulfilled:

- there is no other satisfactory solution;
- one of the reasons listed in 9(1)(a), 9(1)(b), or 9(1)(c) applies;
- and the technical requirements of Article 9(2) are fulfilled.

The infilling of the quarry at Ballinclare, as currently proposed, will result in the loss of a traditional peregrine falcon nesting site at Carrigmore/Ballinclare as the cliff habitats of the quarry will be destroyed.

This is contrary to good planning practice and to the spirit of the EU Birds Directive.

In light of the above legislative requirements this process would legally require detailed surveys to inform same, consultation with National Parks and Wildlife Service, and concerted efforts in terms of avoidance and mitigation to ensure that suitable nesting habitat is retained for the species as part of any development proposals in line with the provisions of Article 3 of the Birds Directive.

Furthermore clarity needs to be sought from National Parks and Wildlife Service in relation to how the quarry nesting populations of Peregrine falcons in County Wicklow contribute to the favourable conservation status of the species in the Wicklow Mountains SPA (Site Code: 004040) in order to inform An Bord Pleanála in making their determination on the Natura Impact Statement for the planning application.

[7] Aniar (2018). Review of the Derogation Process under Article 9(1)(a) of the EU Birds Directive. Report prepared by Olivia Crowe, Gary Goggins and Derek McLoughlin.

The Conservation Objectives for the Wicklow Mountains SPA (Site Code: 004040)[8] state:

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Objective:
To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

- A098 Merlin *Falco columbarius*
- A103 Peregrine *Falco peregrinus*

The importance of ancillary Peregrine falcon breeding sites outside the Natura 2000 protected areas to the population dynamics and breeding success of birds within the Wicklow Mountains SPA (Site Code: 004040) is currently unclear.

This is especially so given the unfavourable habitat condition of the majority of the upland habitats in the Wicklow Mountains SAC where the Peregrine falcon and Merlin nesting within the SPA hunt.

Other avifauna
The surveys presented in the EIAR greatly underrepresent the ornithological value and importance of the Carrigmore/Ballinclare lands for birds. These lands have been the subject of annual recording by Christian Osthoff, a very experienced birdwatcher who has contributed to many ornithological surveys run by BirdWatch Ireland, the British Trust for Ornithology and others over many years including the Countryside Bird Survey, the Bird Atlas 2007 – 2011, great spotted woodpecker studies, woodcock surveys, etc.

The following is a list of species recorded by Mr Osthoff to date including recent counts/observations recorded from the shared quarry boundary with the lands at Carrigmore (including their status under the Birds of Conservation Concern in Ireland[9] list):

[8] NPWS (2021). Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 8.0. Department of Housing, Local Government and Heritage.
[9] Gilbert G, Stanbury A and Lewis L.J. 2021. Birds of Conservation Concern in Ireland 2020 –2026. Irish Birds 43, 1-22.

Species	BOCCI Status	Highest breeding status	3 hour survey conducted on 22/5/21 and 23/5/21	Birds seen in 2020 and 2021 and breeding status
Mallard		Confirmed	Pair seen	Confirmed
Teal		Wintering		
Pheasant		Possible		Possible
Little Grebe		Confirmed	Pair seen	Confirmed
Cormorant		Seen once		Seen once
Grey Heron		Wintering		Seen once
Red Kite		Seen regularly hunting		See regularly
Common Buzzard		Seen regularly hunting		See regularly
Sparrowhawk		Seen regularly hunting		See occasionally
Kestrel		Confirmed		See occasionally
Peregrine		Confirmed	Bird at nest	Confirmed
Moorhen		Confirmed		Confirmed
Lapwing		Confirmed about 30 years ago		
Woodcock		Possible		
Snipe		Wintering		
Jack Snipe		Seen once		
Black-headed Gull		Seen occasionally in winter		
Herring Gull		Seen occasionally in winter		
Greater Black-backed Gull		Seen occasionally in winter		Seen once
Lesser Black-backed Gull		Seen occasionally in winter		Seen occasionally
Rock Dove		Confirmed	Pair and young seen	Confirmed
Stock Dove		Seen occasionally		
Wood Pigeon		Confirmed	Pair seen	Confirmed
Collard Dove		Seen occasionally		
Cuckoo		Heard once		
Swift		Occasional summer visitor		
Great Spotted Woodpecker		Confirmed just outside quarry boundary	Adults seen at nest	See regularly and nesting beside quarry
Sand Martin		Confirmed	Seen	Confirmed in 2020
Barn Swallow		Possible	Seen	See regularly in summer
House Martin		Possible	Seen	See regularly in summer
Meadow Pipit		Seen occasionally in winter		
Pied Wagtail		Confirmed		Probable
Grey Wagtail		Confirmed	Adults and young seen	Confirmed in 2021
Dunnock		Probable	Seen	Probable
Robin		Probable	Seen	Probable
Wheatear		Seen once		
Song Thrush		Probable	Seen	Probable

Species	BOCCI Status	Highest breeding status	3 hour survey conducted on 22/5/21 and 23/5/21	Birds seen in 2020 and 2021 and breeding status
Redwing		Winter visitor		Seen regularly in winter
Mistle Thrush		Possible		See occasionally
Fieldfare		Winter visitor		
Blackbird		Probable	Singing	Probable
Blackcap		Probable	Singing	Probable
Whitethroat		Confirmed	Singing	Confirmed
Grasshopper Warbler		Heard once		
Willow Warbler		Probable	Singing	Probable
Chiffchaff		Confirmed	Singing	Confirmed
Goldcrest		Probable	Heard	Probable
Wren		Probable	Heard	Probable
Great Tit		Confirmed	Young seen	Confirmed
Coal Tit		Confirmed	Young seen	Confirmed
Blue Tit		Confirmed	Young seen	Confirmed
Long-tailed Tit		Possible		Possible
Treecreeper		Possible		Possible
Magpie		Probable		Probable
Jay		Possible		Possible
Jackdaw		Confirmed	Seen	Possible
Rook		Seen regularly		See regularly
Hooded Crow		Confirmed	Seen	Confirmed
Raven		Confirmed	Adults with 2 young	Confirmed
Starling		Confirmed	Pair seen	Confirmed
Chaffinch		Probable	Pair seen	Probable
Linnet		Confirmed	Pair seen	Confirmed
Redpoll		Possible		See regularly
Goldfinch		Confirmed	Young seen	Confirmed
Greenfinch		Confirmed	Pair seen	Confirmed
Siskin		Seen regularly		See occasionally
Bullfinch		Possible		See occasionally
Crossbill		Seen occasionally		Seen once
Reed Bunting		Probable		Possible
Yellowhammer		Confirmed	Singing	Confirmed
Mandarin Duck		Seen once		

12 Invertebrates

The lands at Carrigmore have been formally surveyed for invertebrates including butterflies and dragonflies and have been trapped regularly for moths for the last eighteen years by Mr. Osthoff.

21 species of butterfly have been recorded here and a formal butterfly transect was conducted on the lands for many years as part of the National Butterfly Monitoring Project organised by the National Biodiversity Data centre. 430 species of moth have been recorded here to the end of 2020. Species of conservation concern include both Small Argent and Sable and Yellow Shell both of which are red listed moth species[10] while several of the moths recorded are almost entirely restricted to Co. Wicklow such as Broom-tip, Streak, Oak Hook-tip (only Irish record at Carrigmore) and Devon Carpet which was first recorded in Ireland in the Carrigmore woods in 2020 and proven to breed. Dust arising from the quarry negatively impacts on both the vegetation of the lands and the invertebrate populations supported by same.

13 Reptiles

No surveys have been conducted for the common lizard, which is a protected species and is a typical heathland/quarry species where exposed rocks provide basking habitat for the species.

14 Fisheries & the Potters River

The Potters River is a Salmonid watercourse and supports Atlantic salmon (*Salmo salar* listed under Annex II and V of the EU Habitats Directive), lamprey (Annex II) and Sea trout (*Salmo trutta*) in addition to resident Brown trout. The 2018 EPA biological monitoring recorded Q3-4 at EPA Site 0300 at Kilboy Bridge downstream of the proposed landfill location and also commented "the macroinvertebrate fauna continues to indicate unsatisfactory ecological conditions at Kilboy Bridge." Excessive siltation and some compaction of the riverbed was also observed at Kilboy. The Potters is currently at "moderate" status; however, the objective of Water Framework Directive is to restore its status to at least "good" by 2027 and is listed as a Priority Area for Action in the County.

It is unclear if the proposed wastewater treatment process utilising the silt buster with the addition of dosing agents followed by treatment of landfill leachate in a wetland system (of 3.8Ha) with final discharge to the Potters system is adequately designed and has the capacity to treat the increased volumes of water from the quarry as set out in **Section 2** and **3** above.

No detail has been provided on the flora and fauna in the environs of the proposed discharge route to the Potter's River and there has been no ecological assessment of the aquatic ecology at the discharge location at the Potter's River or surveys for the potential presence of legally protected Annex II species including the brook lamprey, which have been recorded downstream of here.

[10] Allen, D., O'Donnell, M., Nelson, B., Tyner, A., Bond, K.G.M., Bryant, T., Crory, A., Mellon, C., O'Boyle, J., O'Donnell, E., Rolston, T., Sheppard, R., Strickland, P., Fitzpatrick, U., & Regan, E. (2016) *Ireland Red List No. 9: Macro-moths (Lepidoptera)*. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

No consideration has been given to the unmitigated impacts arising from siltation and runoff from heavy vehicles and damage to road verges utilising the proposed haul route as shown on **Figure 14** above on Potter's River. Surface water runoff from this road network should be captured and treated in a constructed wetland (similar to those along the adjoining M11) prior to discharge to the river.

15 Natura Impact Statement

The Natura Impact Statement states that the Buckroney-Brittas Dunes and Fen SAC, which is located approximately 11.5 km downstream of the discharge point from Ballinclare Quarry, is the only Natura 2000 site identified as being within the potential zone of influence or having any ecological connectivity with the Site.

The qualifying interests of the Buckroney-Brittas Dunes and Fen SAC are:

- 1210 - Annual vegetation of drift lines;
- 1220 – Perennial vegetation of stony banks;
- 1410 – Mediterranean salt meadows (*Juncetalia maritimi*);
- 2110 - Embryonic shifting dunes;
- 2120 - Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes);
- 2130 - Fixed coastal dunes with herbaceous vegetation (grey dunes);
- 2150 - Atlantic decalcified fixed dunes (*Calluno-Ulicetea*);
- 2170 - Dunes with *Salix repens ssp. Argentea* (*Salicion arenariae*);
- 2190 - Humid dune slacks; and
- 7230 - Alkaline fens.

The Natura Impact Statement furthermore states that 'all the qualifying interests of the Buckroney-Brittas Dunes and Fen SAC pertain to terrestrial habitats that are not evidently hydrologically linked to the Potters River and therefore the integrity of these habitats will not be affected by any potential change in the river's water chemistry'.

There is a fundamental flaw in this assessment, which is that the Annex I **habitats 2170 - Dunes with *Salix repens* ssp. *Argentea* (Salicion arenariae)** and **2190 Humid dune slacks** are both listed as a **water dependent habitat under Annex IV of the Water Framework Directive**[11][12] - the main water sources driving the hydrology and ecology of dune slacks are both ground, coastal and transitional. The largest dune

[11] Mayes. E. (2008). Water Framework Directive Annex IV Protected Areas: Water Dependent Habitats And Species And High Status Sites. Guidance On Measures Under The Habitats Directive And For High Status Sites. December 2008.

[12] Curtis, T., Downes, S. and Ní Chatháin, B. 2006 Register of protected areas: report on the ecological requirements of water dependent habitats and species designated under the Habitats Directive. Belfast. RPS Consulting Engineers.

slack in the Brittas Bay complex is found at the northern end of the dune system adjoining the Potters River[13] as shown below on **Figure 21**.

Potential impacts on the plant and animal species associated with them has therefore not been adequately considered or ruled out in the NIS.

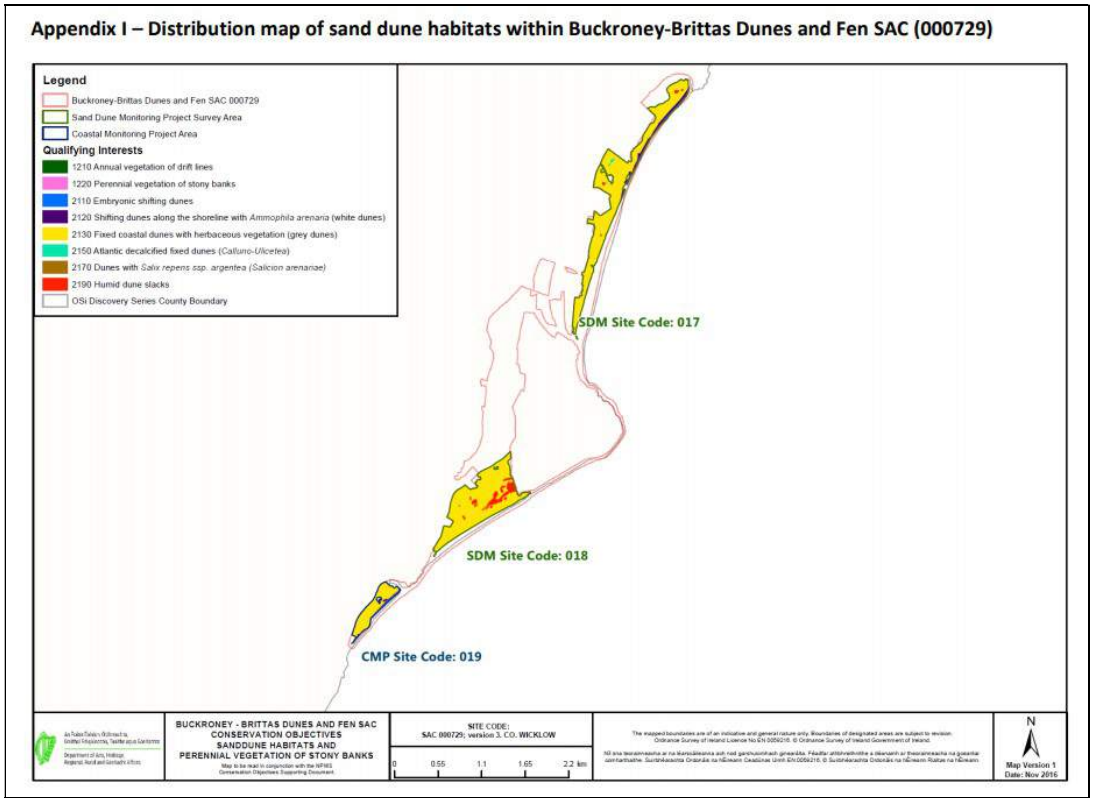


Figure 21. – Distribution map of sand dune habitats within Buckroney-Brittas Dunes and Fen SAC (000729).

It is also unclear if the treatment system and wetlands have been adequately designed/the capacity to deal with the significantly increased volumes of water which will be discharged from the site as part of the dewatering process.

The potential contribution that the nesting peregrine falcons at Ballinclare Quarry make to the wider peregrine falcon populations in the adjoining Wicklow Mountains SPA and potential impacts arising from the permanent losses of this habitat on this qualifying interest has also not been considered or assessed in the NIS.

There has been no consideration of additional projects and cumulative impacts of same in the assessment. It is therefore not possible to reach the conclusion that:

[13] NPWS 2017. Buckroney-Brittas Dunes and Fen SAC (site code: 000729) Conservation objectives supporting document - Coastal habitats. Version 1. March 2017

There will be no likelihood for significant effects on any European sites, and there will be no adverse effects on European site integrity during the construction or operation of the proposed development in combination with other plans or projects.

Nor is it possible to state based on the information supplied and beyond reasonable scientific doubt, that the development, either individually or in combination with other plans or projects, would not be likely to have a significant effect on any Natura 2000 sites.

16 Ecological Restoration

This is the UN Decade for Habitat Restoration.

The United Nations Decade on Ecosystem **Restoration** (2021-2030) challenges everyone to massively scale up **restoration** efforts that breathe new life into our degraded ecosystems. **Restoring** our planet's imperilled ecosystems intrinsically connects us with a chance at a healthier future. There has never been a more urgent need to revive damaged ecosystems than now.

Ecosystems support all life on Earth. The healthier our ecosystems are, the healthier the planet - and its people. The UN Decade on Ecosystem Restoration aims to prevent, halt and reverse the degradation of ecosystems on every continent and in every ocean. It can help to end poverty, combat climate change and prevent a mass extinction. It will only succeed if everyone plays a part.

Wicklow County Council has become the first local authority in Ireland to declare "a biodiversity and climate-change emergency", recognising the need to respond more urgently to the threat of climate breakdown and the global decline of species.

The end use objective for the Ballinclare Quarry Landfill needs to be one of true ecological restoration (not quarry restoration to lands suitable for agricultural use). The proposed ecological restoration should be informed by the extant habitats within the quarry, habitats in the adjoining lands and the species they support.

Kilsaran International as a company proclaim this very approach to biodiversity on their website[14], which states:

> 'The impacts from ground disturbance associated with quarrying can be addressed through the Environmental Management Systems so that extractive sites do not reduce bio-diversity, but are managed to greatly enhance and protect bio-diversity.

[14] https://www.kilsaraninternational.co.uk/sustainability/Bio-Diversity/

> Quite often the land use prior to extraction is intensive agriculture, where species diversity is low due to spraying. During extraction and post closure, exposed quarry faces are ideal breeding and feeding sites for Peregrine Falcons, indeed these birds are not uncommon at a number of the Kilsaran quarries. A clutch of peregrine chicks are photographed above at a Kilsaran sand and gravel pit. National Parks and Wildlife Service (NPWS) monitor the Peregrine falcon at this site and survey the nest site as part of a study of breeding territories of Peregrine falcon. NPWS have recorded and ringed peregrine falcon chicks at this location for a number of years.
>
> Similarly exposed faces at sand and gravel pits provide ideal nesting sites for Sand Martins, solitary bees and hunting wasps.
>
> The provision of water bodies during the operational life or as part of a careful restoration scheme offers valuable habitat for a diverse assemblage of water beetles and other aquatic invertebrates, as well as amphibians.'

They now need to implement this approach on their lands at Ballinclare and deliver a real and considered outcome for biodiversity in their 'quarry restoration', which the current proposals have failed to do. Considerable information to inform such ecological restoration is available on the website https://afterminerals.com/ and in other best practice documents.

As stated by the ABP Inspector **'with a proposed annual intake 800,000 tonnes the proposed development would be one of the largest restoration sites to be developed for this purpose both within the region and the State'**.

In light of this the ecological restoration of the Ballinclare Quarry development should also be one of the largest restoration sites to be developed for this purpose both within the region and the State.

To ensure the successful management of biodiversity value in and around the site, active and adaptive management is required throughout the life-time of the landfill. **An integrated plan is required to reflect the extant biodiversity within the site and its protection and enhancement from the present day through to closure and after-care.**

The plan should contain detailed proposals to ensure the safeguarding of:

- Peregrine falcon nesting sites on the cliffs and ensure that suitable cliff habitat is retained
- Sand martin nesting sites
- Amphibian breeding ponds
- Scrub habitat for breeding birds and red listed plant species
- The creation of large wetland habitats of similar size to those areas of FL8 presently on the site but with integrated ecological design for the long term

creation of wetland habitats/ecological function as opposed to solely engineering requirements and planting with a suitably diverse mix of native Irish wetland species of certified Irish provenance

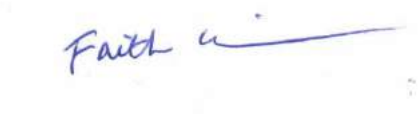
- The restoration of lands suitable for breeding lapwing, which were lost from the lands as a result of the quarry operations in the last thirty years
- The creation of areas of lowland hay meadows/calcareous grasslands seeded with locally sourced, of certified Irish provenance, appropriate wildflower seed mixes created on sub-soil habitats
- Areas of heathland on shallow soils over rocky outcrops to reinstate habitats which have been lost since the mid-2000s through the quarry extension
- A long term monitoring and habitat management commitment for same
- The removal of all construction materials, buildings and waste from the site on completion of the works
- A suitably costed and an index linked bond payable to the local authority, updated and reviewed annually and lodged in an escrow fund or similar to ensure delivery of the plan

The ecological impact assessment as currently set out in the EIAR does not accurately reflect the importance of this area for local biodiversity and potential impacts on same. These include impacts on Annex I Bird Species, Annex IV bat Species, legally protected fauna and flora - additional surveys conducted at the appropriate time of year are required to properly assess and inform same. A number of appropriate licenses for the proposed development have not been provided by NPWS. The NIS prepared for same is also inaccurate and incomplete.

A number of items relating to the proposed dewatering of the quarry need to be reviewed and updated/with the increased volumes of water considered to ensure that no significant impacts on protected habitats and species arise from these works.

The proposed 'quarry restoration' measures fall well short of what would be expected as ecological restoration objectives for what has been described as one of the largest quarry restoration sites to be developed for this purpose both within the region and the State.

Yours sincerely



Faith Wilson