PLANNING OBJECTION TO

OXIGEN'S MATERIALS RECOVERY FACILITY

DERRYARKIN CO OFFALY

PLANNING REFERENCE 22490

Submitted on behalf of the residents of Rhode and Croghan community.

Report prepared by

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Foreword

This objection to Oxigen's planned Material Recovery Facility at Derryarkin Co. Offaly has been submitted on behalf of the concerned residents of Rhode, Croghan and the surrounding areas. With one voice we wish to raise our concerns regarding the rationale to locate this proposed facility in a quiet rural location and raise awareness of the weaknesses and failings of the provided environmental impact assessment report (EIAR) prepared on behalf of Oxigen Environmental Ltd. As a united community we wish to raise our concerns with Offaly County Council regarding this specific planning application and have discussed the main impacts of this proposed development on our local community in this extensive brief.

1. Location

As a community we believe the selection of site for this proposed development is questionable and its potential impact on this quiet rural locality has been severely underestimated. As such we have several issues which we wish to raise with regards to the selected location of this waste handling facility in Derryarkin, Co. Offaly.

1.1. Site selection

According to the EIAR, the applicant considered several potential site locations for the proposed development prior to selecting the proposed site. They stated that the process of selecting the most suitable site in the Midlands for the development of a Materials Recovery Facility was very extensive and has lasted since 2011. The applicant states *"The Derryarkin site was ultimately selected on the basis of economic criteria (e.g. purchase and development of the site into a waste facility represented good economic value), business criteria (e.g. the site is situated in a location that is ideal for facilitating the acceptance and processing of waste collected by the Applicant in the Midlands region), and environmental criteria (e.g. the site is in a remote location away from sensitive receptors that is characterized by industrial/intensive land use and which is served by a good road network)."* Given other possible sites identified by the applicant around the towns of Tullamore, Mullingar, and Mountmellick, the selection of this Derryarkin site seems more rooted in the perceived economic value of the site rather than any business or environmental qualities.

Oxigen stated that they considered Barnan in the nearby Daingean as the site for this proposed development. However, Oxigen already has a site at this location which has been the source of recent controversy as they were fined for breaching their licence and attempting to process waste types for which they had no permit. In a high court ruling in 2021 Mr Justice Garrett Simons prohibited Oxigen

Environmental Ltd from accepting any other type of waste material outside of the construction and demolition waste permitted by their licence.[1] This same facility was back in the High Court less than a year later as they ignored the previous directive and continued to accept and process unlicenced waste products at this site. This breach of licencing terms reflects poorly on Offaly County Council who awarded the initial waste permit in 2010.[2] As the public body who awards this licence, Offaly County council has demonstrated significant failings through a lack of implementation of corrective action once the initial violations to the facilities licencing terms became public knowledge. Through repeated breaches of their licencing terms and complete disregard for the High Court's directive in 2021, Oxigen has shown that they have little or no concern for the community as a whole or the legal system. Considering the community of Barnan's continued legal actions against Oxigen, it is inconceivable that this company would have even considered this alternative location as the is no potential for a successful planning application. Therefore, we can assume that this proposed alternative site was in fact never considered to be in the running.

Several sites around Tullamore were mentioned as other investigated locations for this facility, including Derryclure, Cappincur, and Axis Business Park. Taking the example of Derryclure, we once again wish to highlight the inconsistencies in site selection. Derryclure already hosts a public recycling centre and a landfill site which was in operation until October 2011. It is worth noting that the EPA had granted permission for expansion of the Derryclure landfill site, but Offaly County Council decided not to go ahead with the expansion as it would not be profitable. Given the suitability of the Derryclure area for these activities, questions must be asked as to why it was not deemed a suitable site for this waste handling facility. Indeed, from an environmental perspective, if the landfill site and its expansion was deemed to not impact on sensitive receptors nor have adverse environmental impacts on the Derryclure locality according to the EPA review, then there should not have been any environmental hurdles for this proposed development in the same area. The EIAR for the Derryclure landfill site gives a glimpse into the environmental impact of developments in this area. Two red listed bird species - Black-Headed Gull (*Larus ridibundus*) and Herring Gull (*Larus argentatus*), and four Amber listed bird species - Lesser Black-backed gull, Linnet (*Carduelis cannabina*), Starling (*Sturnus vulgaris*) and Swallow (*Hirundo rustica*) were identified on site, but their populations were under the national 1% level which would offer protection for conservation.[3] All other species on site are green listed meaning they were not believed to be of any elevated conservation concern.[3] Furthermore, there were no concerns regarding aquatic species at this site due to the fact that it is located 4km away from the Clodiagh river.[3] Additionally, Derryclure and other sites in proximity to Tullamore would have offered significant benefits in terms of optimal location of this proposed facility. Firstly, due to their proximity to the

largest town in Offaly, sites surrounding Tullamore would make more economic and environmental sense when one considers the transportation of waste to site and the resultant emissions which influence our carbon and greenhouse gas (GHG) emission targets. Derryclure, approximately 5km south of Tullamore, is served by the N80 national secondary road, and to the North of the town from the Clonminch roundabout on the Tullamore bypass it is served by the N52 national secondary route. The N80 runs south-easterly towards Mountmellick and Portlaoise, where it connects with the M7 motorway. The N52 turns south-westerly across the county towards Kilcormac and Birr before connecting with the N7 national primary route in Nenagh. All these roads are deemed in recent surveys to be in excellent condition and would offer greater connectivity to midlands towns for waste collection, and the existing Tullamore bypass would ensure traffic to this proposed location would not have impacted on the town centre. This is in direct contrast to the chosen site in Derryarkin which is surrounded by poorly maintained roads (refer to section 2. Roads, Traffic, and transport impacts) and which would see facility related traffic passing directly through small quiet rural villages where no bypass is possible. Secondly, the EPA and Offaly County Council has green lighted Ireland's first pyrolysis facility operated by Glanpower Ltd in Derryclure, which once completed could be one of the main endpoints for municipal solid waste (MSW) which will be pre-processed at this proposed Oxigen facility. Glanpower Ltd will be accepting approximately 75,000 tonnes of biomass and mixed municipal waste which will be converted into syngas to subsequently fuel reciprocating engine generator sets to produce 9.9 MW of electricity for export to the grid. Business acumen would suggest that this would be an optimal location for Oxigen's facility, with its proximity to the future pyrolysis facility offering the added bonus where MSW that has been pre-processed in Oxygen's site might only result in a small carbon footprint as it makes it journey to its final destination.

A similar situation arises with the proposed Mullingar sites (Clonmore and Newtown). Clonmore already hosts a state-of-the-art waste management facility operated by Soltec since October 2022. This centre is located in the IDA business park in Clonmore which would have been an ideal site for Oxigen's proposed development. Clonmore wastewater treatment plant is also located nearby which would have been ideal in terms of dealing with the collected wastewater generated from this proposed Oxigen site. This alternative site would have been well suited to Oxigen's proposed development and did not present any major hurdles in terms of environmental impact. It is more realistic to state that Oxigen did not discount this site based on environmental concerns (since Soltec also conducted an environmental impact assessment and were granted permission) but more simply missed the boat in terms of securing the site and now from a business perspective the location is undesirable due to competition from the more recently constructed Soltec site.

The local and environmental impact has received only minimal consideration and the cumulative impact on locals (both from traffic, noise, air pollution and degradation of the roads to name but a few) have not been remotely considered. Based on all the above details regarding alternative locations, we question the choice of a location in east Offaly, almost 25km from the largest town in the county, which will entail significant transportation of waste out to this rural location from the towns, only for the MSW to have to be transported back across the county for landfill or incineration.

1.2. Over-industrialization of a single rural location

As a community we believe that this specific region of the midlands has been heavily targeted in recent and coming years for industrialization. At the adjacent Derrygreenagh Works site, which is adjacent to this proposed development, a planned gas fired power station already under review with an Bord Pleanála as part of the Strategic Development process. In addition, there has been heavy investment in wind and solar farms and there is a planned green energy park and hydrogen storage facilities also in the pipeline for this locality. Given the excessive degree of planned development for this rural community, the cumulative environmental and societal impact must be considered, particularly if all proposed developments are allowed to proceed. A list of the planned developments under consideration, mid construction or already operating in this area is shown below:

- Yellow River Windfarm - 28 Turbines (Currently under construction)
- Board Na Mona Derrygreenagh Gas Fired Power Station (Planning Granted in 2010, updated application due to be lodged later this year under Strategic Infrastructure Development process to An Bord Pleanála, predicted construction start 2024)
- Future Renewable Energy Projects planned under Board Na Monas "Derrygreenagh Energy Park" 3,000 H/A site in which Derryarkin is located.
- Derryarkin Sand and Gravel extraction quarries (Currently in operation)
- Srah Solar Farm (132 HA)
- Clonin Solar Farm (96 HA)
- Cloncrean/ Yellow River WindFarm (R400 used to transport aggregates)
- Moanvane Windfarm (R400 used to transport aggregates)
- Kiernan Milling Pig Farm (In operation at present)

This is an excessive level of industrialization and development of a small rural community which boasts just 841 inhabitants. The community is hemmed in on all fronts by these big developments, which are imposing significant changes on the character and landscape of our village and surrounding area. It is

essential that the cumulative effects of these multiple industrial ventures on our community and environment are in fact considered. The consequences of such extensive industrialization, including potential impacts on local ecosystems, infrastructure, and our quality of life, should not be underestimated. The strain on our resources, the potential for environmental degradation, and the social and economic impacts on our community must be thoroughly assessed. The well-being and sustainability of our community depend on a holistic understanding of these impacts and the implementation of measures to mitigate any adverse effects.

1.3. Socio-economic impact

Oxigen Environmental Ltd believes their development will have a positive socio-economic impact on the nearby village of Rochfortbridge. Though numerous community meetings between residents of both Rhode and Rochfortbridge in response to this proposed development, residents of both villages are agreed that there will be limited to no beneficial socio-economic impact on our villages. Part of Oxigen's convictions that this proposal will benefit the local communities is based on their prediction that a lot of their construction employees will live in Rochfortbridge during the initial construction phases. However, according to Daft.ie, as of 24/09/2023, there are no rentals available in Rochfortbridge and there is only one 2 bed premises available for rental in Rhode village. Expanding the search radius to 5km around each village, the returned results indicate there is currently one two bed property (a two-bed house) within range of Rochfortbridge **(Figure 1a)** and two properties (a two-bed house and a one bed studio) to rent within range of Rhode village **(Figure 1b)**. Therefore, it is unlikely that any construction workers employed within this development will live in the localities and therefore contribute to the economy of either village.

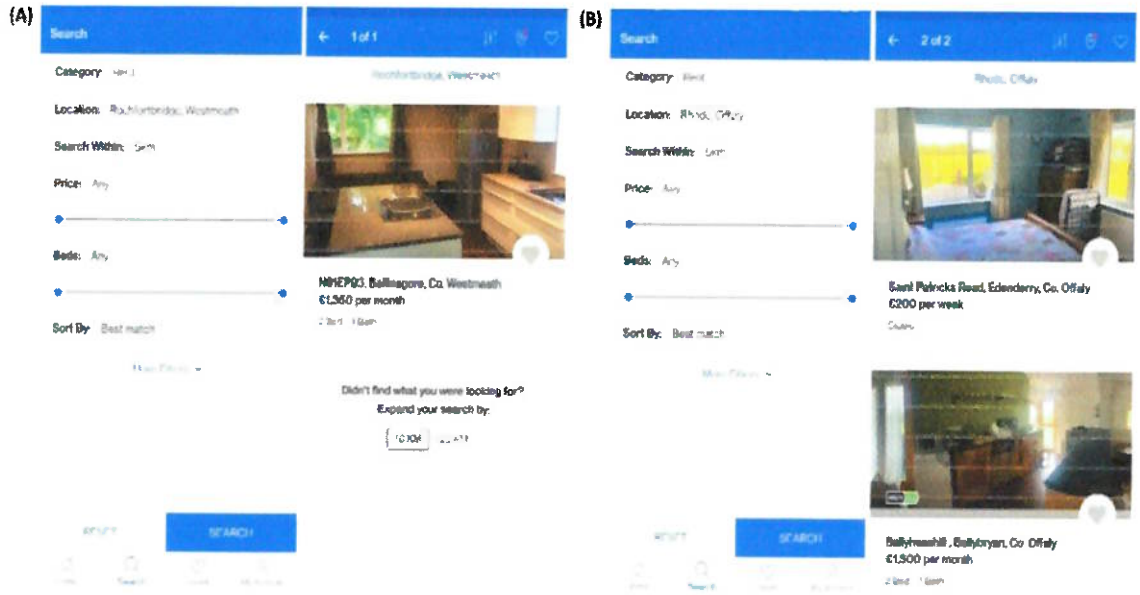


Figure 1: Daft search for available rental properties in the vicinity of the proposed development.

Vague promises of additional revenue and profits for local businesses have been recognized as an obvious attempt to sway local struggling businesses into silence with regards to objections to this intrusive development. The affected communities recognize that there will be limited revenue generated for local businesses during the construction and indeed operational phases. During the construction phase, Oxigen's plans indicate that fill, sand, and gravel will be brought in from the neighbouring Kilmurray sand and gravel quarries. These quarry workers are already employed in the area and cannot be seen as an additional revenue stream for local businesses. Construction traffic carrying in materials for the build will be unlikely to stop in the villages due to their proximity to the site and the fact that they will likely be on strict deadlines for material delivery. Additionally, as stated within the EIAR, there will only be 24 employees on site during operational phases, and it is unlikely that these employees will significantly increase overall spending in local shops during their work hours on site. Additionally, as a source of local employment this premises will in fact offer very limited employment opportunities to the locality.

Additionally, Oxigen Environmental Ltd have not considered the negative impact such a development will have on local house prices depending on distance from the site, noxious smells, traffic, pollution concerns and the increased presence of vermin. Comprehensive meta-analysis studies have indicated that all classes of waste sites, regardless of their daily activities, affect housing values in localities [4]. A Swedish study focusing on the importance of location planning for recycling stations (RCSs) documented that these facilities lead to increased traffic, noise, dirt and increased health risks in their neighbourhoods and provided strong evidence to support the claim that RCSs negatively affect housing prices [5]. Worryingly, many of the published studies suggests that this negative capitalisation starts even before the facilities are operational. A study by Eshet *et al* estimated the economic values of externalities related to waste transfer stations. These facilities most closely mirror the intended activities of Oxigen's facilities, with waste transfer stations serving as a link between a communities solid-waste collection scheme and final waste disposal facilities such as landfills, incinerators, material recovery facilities and recycling plants. This study showed a statistically significant negative relationship between proximity to such a facility and property values [6]. Numerous studies have indicated that such developments reduce market value in a region by 5.5-7.3% of market value, and meta-analysis has indicated that facilities accepting high volumes of waste, such as this proposed development, can decreased house values in the area by 12.9%.

1.4. Lack of community engagement

The lack of consultation with the local communities has been extremely telling in regard to the developer's views and intentions to work with the community in an open transparent manner to protect our environment. Site notices were only placed at the proposed site after the R400 was closed to all traffic, a very underhanded approach. The local community was not consulted or informed of this proposed development or its potential impact on our quiet rural village. This does not provide good optics for the development and certainly does not assure locals that everything will be done correctly. Despite Offaly County Council's decision to extend the objection submission deadline, Oxigen has not made any attempt to engage with the local community and answer any questions. Therefore, the villages of Rhode and Rochfortbridge believe there can be no trust placed in this company to keep the health and safety of our communities and environment at the forefront of all their proposed activities as they have displayed a blatant disregard for the concerns of those who live in the area.

2. Roads, Traffic and transport impacts

Oxigen envisages construction will take an estimated 12 months which will result in substantial construction related traffic on the roads in proximity to the development in the year prior to its completion. It must also be noted that Oxigen predicts that construction of this facility will coincide with the predicted construction timeline for the neighbouring gas-fired power plant; therefore, the impact of construction traffic is being significantly underestimated in their proposal. Following construction of the proposed facility, Oxigen has stated that the disruptions will be minimal, a claim the community wishes to strongly dispute.

2.1. Negative impact of quality of R400

As outlined in the application, this proposed development will lie on the R400 which links Rochfortbridge to Rhode. The R400 bog rampart road is constructed on a peat embankment raised above the adjoining land and is consistently in poor condition. Rampart roads often undergo considerable distortion due to low shear strength and the high compressibility of the peat foundation, which may pose a significant safety hazard. Upon review, Offaly has been shown to have some of the worst quality roads at present nationally. In 2019, the National Oversight and Audit Commission (NOEC) published the Local Authority Performance Indicator Report 2018, analysing service provisions including roads, water and housing within Ireland's county councils [7]. This report described regional roads as "the arteries that connect many parts of the country." As part of this report, 21 authorities, including Offaly County Council, surveyed 100% of their regional roads in the 24-month period to the end of 2018 **(Table 1)** [7].

Table 1: Percentage of Offaly roads surveyed in the 24-month period to 31/12/2018.

The data is calculated as a percentage of the total amount of regional roads, primary roads, secondary roads and tertiary roads nationally. [7]

Pavement Surface Condition Index (PSCI) Ratings	
(a) % regional roads which received a PSCI rating in the 24-month period to 31/12/2018	**100**
(b) % Local Primary Roads that received a PSCI rating in the 24-month period to 31/12/2018	**84**
(c) % Local Secondary Roads that received a PSCI rating in the 24-month period to 31/12/2018	**69**
(d) % Local Tertiary Roads that received a PSCI rating in the 24-month period to 31/12/2018	**79**

Within the NOAC report, Pavement Surface Condition Index (PSCI) ratings were broken down as shown in **Table 2**, based on the pavement surface quality upon inspection.

Table 2: PSCI rating definitions.

PSCI Rating	Road quality
1 -4	Some to severe structural distress
5 -6	Surface defects, localized distress
7 -8	Surface defects
9 – 10	No defects or less than 10% defective

A breakdown of the PSCI ratings of Offaly regional roads, across primary, secondary, and tertiary roads are shown below **(Table 3)**. This report indicated that nationally Offaly was found to have the highest proportion of regional roads in the poorest PSCI rating of 1-4, with over 16% of the regional roads located within Offaly's borders displaying structural distress, which was often severe. A PSCI rating in category 1-4 is worrying as these are the most heavily trafficked roads outside of the national routes. Poor quality roads are causes of concern to communities and negatively impacts the economic development of localities.

Table 3: Offaly County Council survey of the county's regional roads. [7]

(a) PSCI rating of all regional roads in Offaly			
% Total kilometres (KMs) with PSCI rating of 1-4	% Total KMs with PSCI rating of 5-6	% Total KMs with PSCI rating of 7-8	% Total KMs with PSCI rating of 9-10
16	25	31	28
(b) Survey of Offaly's Primary Roads			
% Total KMs with PSCI rating of 1-4	% Total KMs with PSCI rating of 5-6	% Total KMs with PSCI rating of 7-8	% Total KMs with PSCI rating of 9-10
10	31	35	23
(c) Survey of Offaly's Secondary Roads			
% Total KMs with PSCI rating of 1-4	% Total KMs with PSCI rating of 5-6	% Total KMs with PSCI rating of 7-8	% Total KMs with PSCI rating of 9-10
19	22	34	23
Survey of Offaly's Tertiary Roads			
% Total KMs with PSCI rating of 1-4	% Total KMs with PSCI rating of 5-6	% Total KMs with PSCI rating of 7-8	% Total KMs with PSCI rating of 9-10
29	13	16	21

This trend was also observed in the NOAC 2021 report which showed that 11.68% of regional roads were reported to have the poorest PSCI ratings of 1-4. It must be cautioned however that these 2021 figures are grossly underestimated as only 79% of Offaly's regional roads were actually surveyed in the 24-month period to 31/12/2021. According to the NOAC 2021 report Offaly's percentage of regional roads with a PSCI rating below 6, indicating localized or structural distress and surface defects, to be 25.38% [8]. However, due to the incomplete survey of all regional roads conducted within Offaly for the period covered within this report, it is reasonable to assume that the figures relating to PSCI categories 1-4 and 5-6 would be much higher if a full survey was conducted, aligning more precisely with the figures from the full study conducted in 2018.

All the above information indicates that the road quality within Offaly itself is ranked among the top 5 worst in the country, particularly in the case of our secondary and tertiary roads. The image provided below further illustrates the stark and frankly worrying road ratings at this precise moment for County Offaly (**Figure 2**), effectively illustrating how ill equipped the road network in East Offaly around this proposed development are for dealing with the significantly increased HGV traffic which will arise from

this proposed development. From the indicative map provided below it is clear that the majority of roads in East Offaly, and indeed in proximity to this proposed development have a PSCI rating of 1-4, which indicated the worst condition.

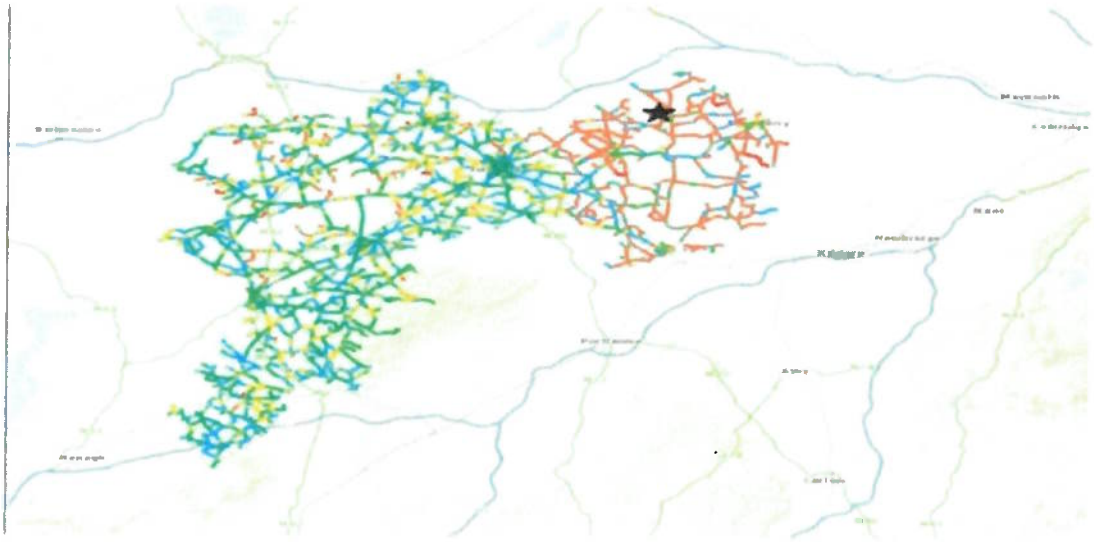


Figure 2: Road PSCI ratings across County Offaly.

In this figure, green or blue roads are deemed to be in good condition (PSCI ratings above 7), yellow roads require minor upgrading (PSCI rating 5-6, while red roads require major upgrading (PSCI rating 1-4). The site of the proposed development is indicated by the star.

Indeed, Offaly County Development plan 2021-2027 [9] has identified the R400 as a restricted regional route citing carrying capacity as the reason for this classification **(Figure 3)**.

13.5.4 Planning Policy and Development Control

PL2 / 22 / 490
21 / 09 / 2022

13.5.4.1 Offaly County Development Plan 2021-2027

Offaly County Development Plan 2021-2027, Table 8.4 *'Restricted Regional Routes in County Offaly'* lists R402 between Ballina and Edenderry as restricted and the reason is on account of carrying capacity. The R400, R420 are similarly listed in the plan. Offaly County Development Plan 2021-2027, Figure 8.10 provides a map showing all restricted regional routes throughout the county.

The R400, R420 and R402 are all routes that are highlighted in Offaly County Development Plan 2021-2027, Figure 13-1 as those facilitating transport of materials to the proposed development site.

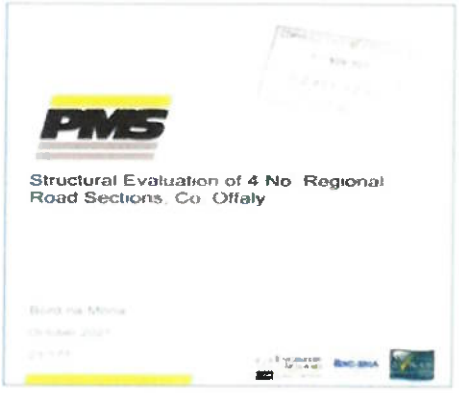
Figure 3: R400 carrying capacity.

This classification includes the section of the R400 from Rhode village to the county border with Westmeath. All HGV traffic entering and existing the site will be required to use a section of this road. The County Development Plan details "a restrictive policy on new development in the interests of preserving the traffic capacity and to avoid the creation of hazards" **(Figure 4)**.

Offaly County Development Plan (2021 – 2027) Table 8.4 and corresponding Figure 8.10 identify R400 from Rhode to the county boundary with Westmeath as a *'Restricted Regional Route'*. The Development Plan highlights such regional routes as being of strategic importance to the county and region and outlines that in the case of these regional routes, especially those that carry higher volumes of traffic, the Council adopts a restrictive policy in relation to new development in the interests of preserving the traffic capacity and in order to avoid the creation of traffic hazards.

Figure 4: R400 designation from Rhode to County border with Westmeath.

Of interest we noted that the consultant acting on behalf of Oxigen for this proposed development (Fehily / Timony) were contracted by another client, Bord na Mona, to complete a structural road survey for planning reference PL2/21/291.[10] The survey and report generated in 2021 included 4 road sections totalling approximately 36 kms. The 4 road sections are divided into 32 chainage sub sections. The R400 accounts for 15Kms of the total routes surveyed. The report included a very comprehensive structural road survey of several sections of the R400, including a 15km section of the road referred to as the N6 to R402 junction. The R400 intersects and passes beyond both junctions in both directions. In that report, the outlined engineering criteria included Central deflection (D1), Surface curvature index (SCI) and deflection (D7). Details taken from that report noted higher values of D1 and D7 which is indicative of poor structural condition and poor subgrade respectively. In addition, SCI values were shown to be in excess of 250 microns, indicating poor load spreading ability **(Figure 5, Figure 6)**.



Structural Evaluation Output Parameters

- Central Deflection (D1) – Higher D1 results indicate Poor Structural Condition
- SCI – Values in excess of 250 microns indicated poor load spreading ability
- Deflection (D7) – Higher readings indicate poor subgrade

Figure 5: PMS completed in October 2021 and the key performance parameters.[10]

Categorization of D1 Deflective results	
Description	Regional roads (microns)
Good	< 300
Good to Poor	300 to 500
Poor to Bad	500 to 800
Bad	>800

Categorization of SCI results	
Description	Regional roads (microns)
Good	< 150
Good to Poor	150 to 250
Poor to Bad	250 to 400
Bad	>400

Categorization of D1 Deflective results	
Description	Regional roads (microns)
Good	< 300
Good to Poor	300 to 500
Poor to Bad	500 to 800
Bad	>800

Figure 6: Breakdown of categories assessed during road survey.

The performance of the R400 as graphed in **Figure 7** shows poor structural condition, poor load spreading ability and poor subgrade throughout and further notes the initial sections from the N6 (from Rochfortbridge) through Rhode village as being in particularly bad condition.

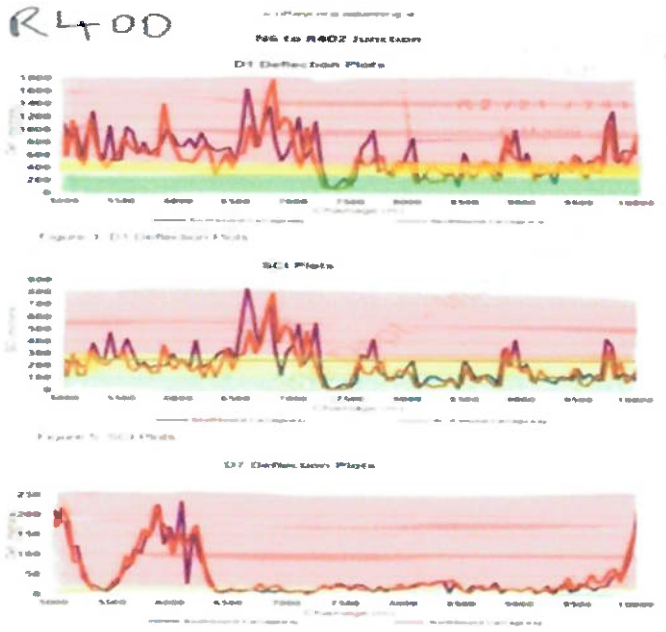
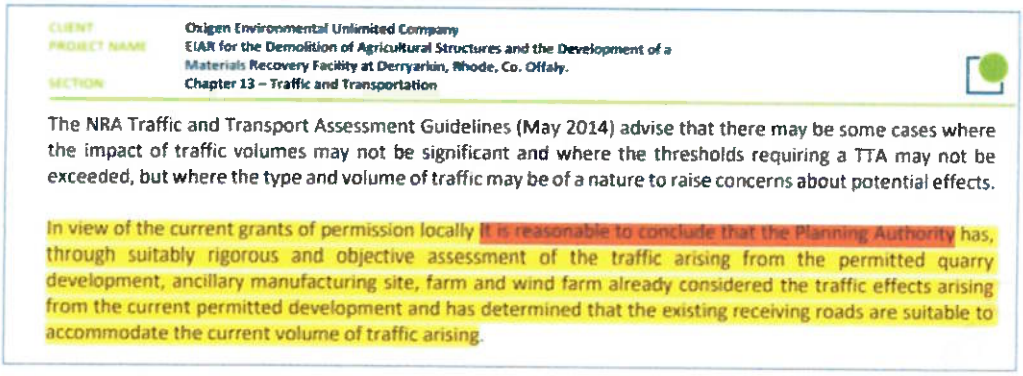


Figure 7: R400 performance from 2021 survey.

This is in direct contradiction to an excerpt from Section 13 of Oxigen's EIAR Transport chapter which states "it is reasonable to conclude that the planning authority has through suitable rigorous and objective assessment" ...concluded ...*"that the existing receiving roads are suitable to accommodate the current volume of traffic arising"* **(Figure 8).**[11] Given the road condition outlined in the PMS report and the capacity issues evident on the R400 already, such an assumption cannot be taken to be likely or robust. We believe the PMS survey offers substantial weight of evidence to the community's argument that the R400 cannot withstand the level of sustained HGV traffic that would be entailed in supporting this proposed development.



CLIENT Oxigen Environmental Unlimited Company
PROJECT NAME EIAR for the Demolition of Agricultural Structures and the Development of a Materials Recovery Facility at Derryarkin, Rhode, Co. Offaly.
SECTION Chapter 13 – Traffic and Transportation

The NRA Traffic and Transport Assessment Guidelines (May 2014) advise that there may be some cases where the impact of traffic volumes may not be significant and where the thresholds requiring a TTA may not be exceeded, but where the type and volume of traffic may be of a nature to raise concerns about potential effects.

In view of the current grants of permission locally it is reasonable to conclude that the Planning Authority has, through suitably rigorous and objective assessment of the traffic arising from the permitted quarry development, ancillary manufacturing site, farm and wind farm already considered the traffic effects arising from the current permitted development and has determined that the existing receiving roads are suitable to accommodate the current volume of traffic arising.

Figure 8: Factually incorrect assumption of rigorous testing by Offaly County Council.

Of interest we note the different designations for the R400 from Westmeath versus Offaly County Council. The R400 travels from Cushina near Portarlington, transiting Co. Offaly, where it joins the R419 to Mullingar via Rochfortbridge. The section of the R400 from Rochfortbridge TO Mullingar is recognized as being of much better condition than the sections within Co. Offaly, particularly from Rhode to Rochfortbridge. This can be attributed to the implementation of a HGV management strategy by Westmeath County Council, which prohibits 5-axle vehicles from travelling along this road. This 5-axla ban has also been deployed by Laois County Council at the other end of the R400. Despite the documents poorer road conditions and narrower carriageways within the same road in Offaly, no such HGV management plan has been adopted by Offaly County Council. We see this as a significant failing and query why Offaly County Council's approach to managing of valuable road systems is in such direct contrast to neighbouring County Councils.

Over recent years, there has been increased HGV construction traffic, from both the Yellow River Wind Farm (YRWF) development, which is still in its infancy as regards construction phases, and the existing quarries in this area, using this narrow, rural bog road, which has negatively impacted on the road quality. This increased traffic and weight has led to destabilization and subsequent collapse of the road

margins into the adjacent steep ditches, as well as degradation and breakage of the pavement surface, resulting in dangerous depressions and potholes littering this stretch of regional road. Complaints and photographic evidence of the poor road surface have flooded the local county council for the past two years, with locals reporting damaged vehicles, flat tires and accidents arising from this badly maintained stretch of road. Additionally, there have been numerous highly publicised articles in the local papers of accidents on this road with lorries overturning due to the poor road quality **(Figure 9)**.

Figure 9: Evidence of one of many HGV accidents on the R400.

Within Oxigen's EIAR (EIAR non-technical Summary page 29) it is stated that following Oxigen's assessment of the impact of traffic associated with this development during its operational phase, they have concluded that it *"does not have the potential to give rise to a premature or unacceptable reduction in the level of service available to road users on national or regional roads or their junctions in the vicinity of the proposed development"*. This is a statement we as a community strongly refute. At this present moment in time, the R400 is indefinitely closed to traffic until further notice for emergency repair works. The bridge over the yellow river on the R400 failed on 18th July 2023 and is still awaiting repairs ***(Figure 8)***. This bridge is one of two masonry arch bridges located on the R400 near this proposed development. The closure of this main route between Rhode and Rochfortbridge has led to diversions on local tertiary roads in the nearby Croghan and Tyrellspass, which is rapidly degrading these other routes, to the point where they are now also in need of major upgrades and repairs.

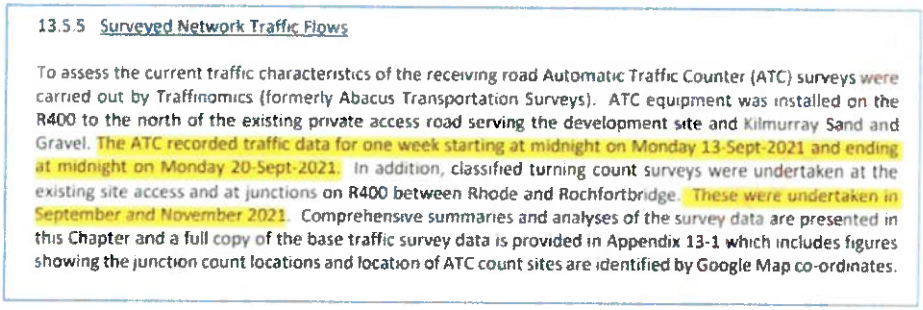
Figure 10: Collapse of the Yellow River masonry arch bridge.

This image shows the deconstructed bridge and the roadblock currently in place on the R400.

Offaly County Council have made numerous attempts over recent years to repair this severely damaged road and prevent further sinkage of the road surface. However, all repair efforts thus far have been widely acknowledged as a patching exercise as the road once again continues to degrade as soon as the heavy traffic returns. Indeed, this is not the first road closure this year, this road has been closed regularly for substantial periods of time for emergency repairs as can be evidenced on Offaly County Council's own site. Therefore, we can confidently rebuke Oxigen's claims and state that more than 27,000 annual HGV movements into the development site will directly impact on road users through sustained damage to the road surface and further damage to the bridges and margins, inevitably resulting in further repeated incidences of road closures. This road has proven to be unsuitable for sustained HGV activity, as evidenced by the damage recorded through numerous photographic submissions to the council and the necessity to regularly close this stretch of regional road for repairs. As such, it is evident that this same stretch of road is not capable of supporting the degree of heavy traffic that the operations of such a development will trigger.

2.2. Increased traffic resulting from this development.

For our initial point, we wish to raise our concerns over the outdated and obsolete traffic surveys used to establish the baseline traffic levels upon the R400 and surrounding areas. For baseline measurements automatic traffic counter surveys were conducted in September 2021, and it is stated that a 5-day moving average was utilised to compensate for the impact of COVID on local traffic levels **(Figure 11)**.[11] However, the community wishes to highlight that there has been a substantial increase in R400 traffic in the two years since this survey was conducted and voices concern that a two-year old obsolete traffic survey is being utilised as the basis of forecasting future traffic patterns and trends. This cannot be deemed acceptable by any professional standards.



13.5.5 Surveyed Network Traffic Flows

To assess the current traffic characteristics of the receiving road Automatic Traffic Counter (ATC) surveys were carried out by Traffinomics (formerly Abacus Transportation Surveys). ATC equipment was installed on the R400 to the north of the existing private access road serving the development site and Kilmurray Sand and Gravel. The ATC recorded traffic data for one week starting at midnight on Monday 13-Sept-2021 and ending at midnight on Monday 20-Sept-2021. In addition, classified turning count surveys were undertaken at the existing site access and at junctions on R400 between Rhode and Rochfortbridge. These were undertaken in September and November 2021. Comprehensive summaries and analyses of the survey data are presented in this Chapter and a full copy of the base traffic survey data is provided in Appendix 13-1 which includes figures showing the junction count locations and location of ATC count sites are identified by Google Map co-ordinates.

Figure 11: Section 13 of the EIAR detailing the obsolete Traffic Survey.

Based on these aforementioned road surveys in the previous section, it is clear that this road is not capable of supporting the current level of traffic using it daily, never mind supporting the increased

traffic which will inevitably have to use this road if this development goes ahead. Analysis of Trafficwise daily surveys for 2021 and projections for 2024, 2029 and 2039, it can be observed that the number of HGV trips through the village of Rhode are estimated to increase from 71,000 to 102,000 over this period. We believe this is a conservative estimate and does not in fact consider the HGV linked traffic which would arise from developments such as Oxigen's proposed Materials Recovery Facility. Based on estimations presented by Oxigen in their EIAR (EIAR non-technical Summary page 28), we can calculate how many Heavy Goods Vehicles (HGVs) will in fact enter this site annually:

$$63 + 14 = 77\ HGV\ entering\ site\ per\ day * 360\ facilities\ operational\ days$$
$$= 27{,}720\ HGVs\ entering\ site\ annually.$$

Including the return trip out from the site, this means there will be an additional 55,440 HGV movements annually along the R400.

It is noted in Oxigen's EIAR these vehicles will not simply be cars or vans, but instead this additional traffic will in fact be HGVs (ranging from smaller 3-12 tonne to larger 15-25 tonne lorries). Given a target annual waste haulage figure of 90,000 tonnes, it is more than likely that the HGVs entering the site will be the larger HGVs in order to meet targets. Additionally, given the mixed nature of the waste that will be handled onsite, it is fair to state that this estimated traffic increase is in fact conservative; some of these materials, particularly waste from demolition and construction sources, will of course be bulkier so it is reasonable on behalf of the locals to actually expect traffic increases in excess of those estimated by Oxigen if their handling targets are to be reached. These estimations by Oxigen also do not factor in the additional HGV traffic necessary to transport the pre-processed biofuel offsite to a biofuel processing plant. It also does not account for the additional HGV traffic which will be required to transport the processed municipal solid waste (MSW), also referred to as domestic waste which includes black and brown bin contents, from the facility to its final destination at an incinerator site or landfill or the HGV traffic that will be required to regularly remove fouled wastewater from the collection tanks to an appropriate waste water treatment plant.

Within Oxigen's EIAR (EIAR non-technical Summary page 28) it is stated *"The 4km section of Regional Road R400 between the site and M6 will carry more than half of all materials imported and practically all exported material."* The research conducted in this section via the Road Safety Authority has only focused on this stretch of road from the facility site to Rochfortbridge in terms of collision and accident clusters, blatantly ignoring the more problematic stretch of the R400 on the Rhode village side of the site. However, if we consider the above statement made in Oxigen's proposal, worst case scenario will see half of the HGV traffic entering the site from the Rhode direction – meaning annually

approximately 13,860 HGVs will transit through the village of Rhode carrying waste to the facility (or more simply almost 40 HGVs daily based on the 360-day working calendar utilised by Oxigen). These vehicles will most likely also have to make the same return trip through Rhode to return to their allocated depots.

Overall, it cannot be ignored that this development will lead to an unprecedented increase in HGV traffic on the badly maintained R400, which will negatively impact on the local villages of Rochfortbridge and Rhode due to increased traffic movements, congestion at crossings, increased traffic noise and air pollution via dust and exhaust emissions.

2.3. Disregard for the current traffic calming measures implemented in Rhode.

It should also be noted that within the village of Rhode works are currently ongoing as part of the Active Travel Scheme which aims to take vehicular traffic off our local roads and encourage walking and cycling. As part of this scheme, within Rhode village, upgrades are ongoing such as widening of the footpaths and the addition of pedestrian crossings within the village supported by Offaly County Council and EU funding **(Figure 12)**. It was hoped that these upgrades will make the school commute safer for children in our locality who have been at risk due to the increased heavy vehicle traffic which speed up and down the school road. One negative effect from these works within the village is the narrowing of the roads, specifically at the crossroads within the village. The road has become so narrow within the heart of the village that it is difficult for two cars to comfortably pass at certain points and smaller trucks struggling to make the turn down towards the R400. Already this narrowed junction is proving problematic for larger vehicles and a truck has recently knocked over the stop sign on one side of this crossroads whilst attempting to turn. Further work is currently ongoing at this junction to add further footpaths and widen the existing ones on the church side of the village. Even with these road works only partially completed the road has been narrowed so much on the crossroads that only one car can pass through at a time and once these works are completed larger vehicles such as HGV will not be able to successfully take the turn onto the R400. As already discussed, the proposed development of this facility will inevitably lead to increased heavy truck traffic through this narrowed village crossing, which will increase the risk to pedestrians, particularly young children and seems to defy the purpose of the Active Travel Scheme and recent traffic calming measures in this small rural locality.

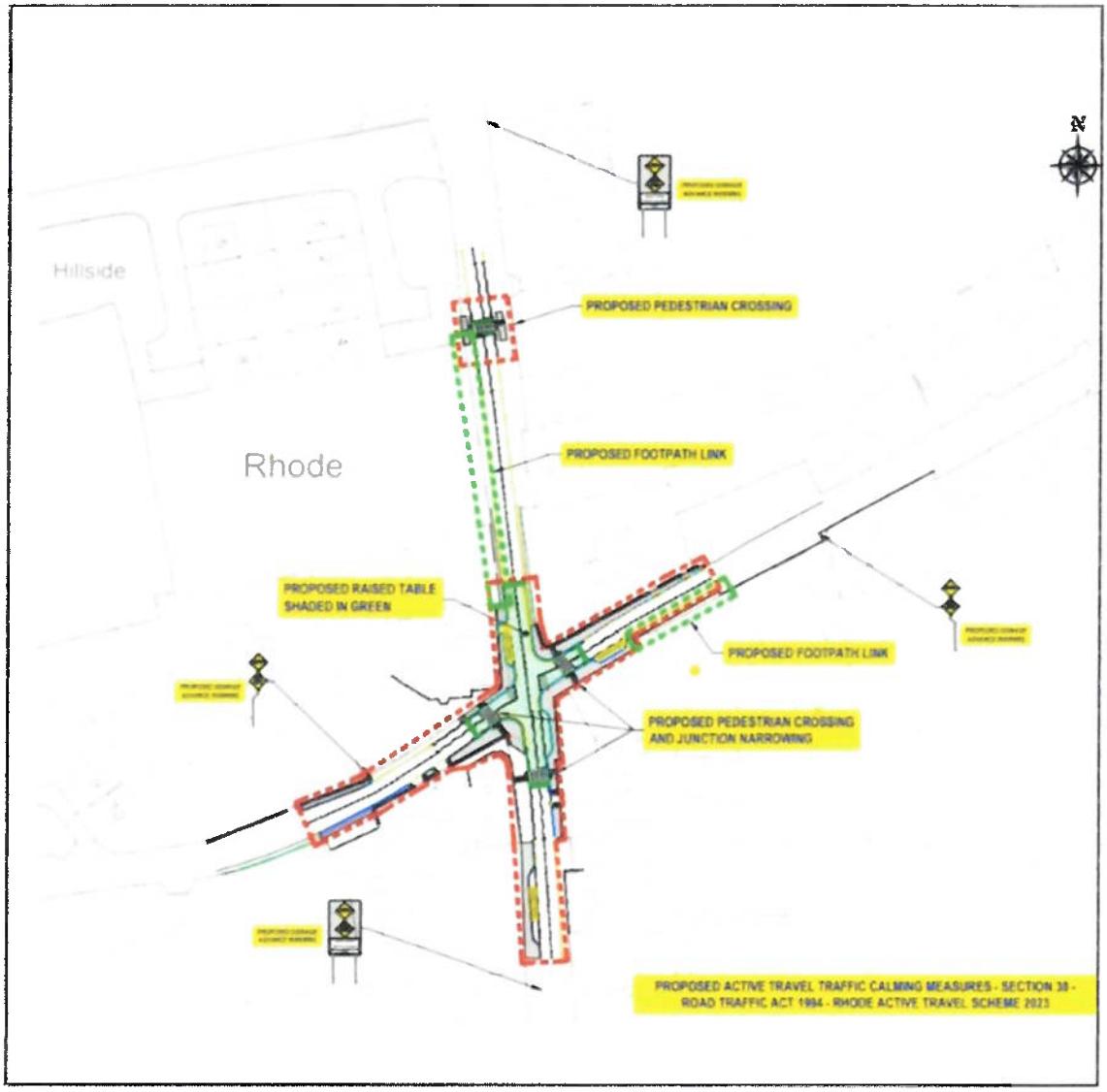


Figure 12: Current alterations to the crossroads and road layout in Rhode village.

3. Impacts on air quality

In this proposal Oxigen does not envisage that the proposed development will have a significant impact on local air quality. As a community we wish to strongly disagree. Clean air is considered a basic requirement of human health preservation and well-being, with epidemiological studies demonstrating that even low levels of air pollution in industrialised societies are linked to adverse acute and chronic health outcomes such as cancer, asthma, stroke, heart disease, diabetes, obesity and dementia.[12, 13] On a global level, air pollution is the eighth most important risk factor in premature death worldwide.[12] In recognition of the significant adverse health impact of air pollution and low air quality, Ireland has recently taken a major step forward with the introduction of the Clean Air Strategy in 2023 which aims to reduce air pollution and promote cleaner ambient air.

3.1. *Particulate matter generation from HGV traffic*

Particulate matter (PM) refers to all suspended aerosols and particulates in the atmosphere, which have been shown to be derived from different sources and have diverse chemical physical properties.[14, 15] PM is categorized into three main groups based on size; (a) coarse particles greater than 2.5 µm diameter (PM_{10}); (b) fine particles, of less than 2.5µm diameter ($PM_{2.5}$); and (c) ultrafine particles, which are less than 0.1µm in diameter (UFP).[14] The EPA monitors two types of PM, PM_{10} and $PM_{2.5}$, and compares levels to limit values detailed in the Cleaner Air for Europe (CAPE) directive and World Health Organization (WHO) guidelines. [16] Both $PM_{2.5}$ and PM_{10} can be inhaled and can deposit throughout the airways, though the locations of particle deposition in the lung depend on particle size **(Figure 13)**. $PM_{2.5}$ is more likely to travel into and deposit on the surface of the deeper parts of the lung, while PM_{10} is more likely to deposit on the surfaces of the larger airways of the upper region of the lung. Particles deposited on the lung surface can induce tissue damage, and lung inflammation.

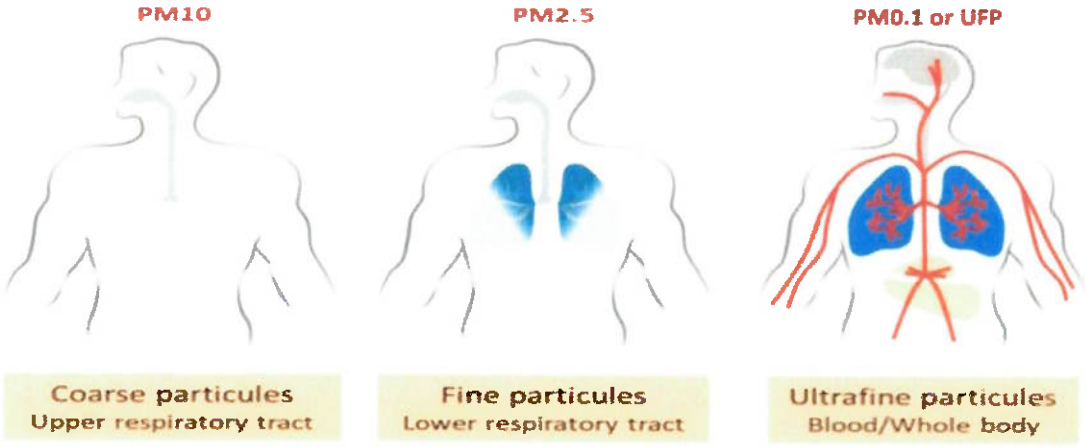


Figure 13: Lung penetration of particles dependent on size. [17]

Short term / acute exposures (up to 24 hour duration) and long term / chronic exposure (months to years duration) to both $PM_{2.5}$ specifically have been associated with premature mortality, increased rates of hospital admissions, asthma attacks and respiratory symptoms, particularly in children and older adults.[18-21] The European Environment Agency (EEA) estimated in its 2018 report that 35,800 premature deaths were due to exposure to $PM_{2.5}$ each year in France, a much higher figure than the impact of nitrogen oxides (NOx) and ozone. [22] Looking at the European Union as a whole (i.e., 28 countries) the figure is 391,000. WHO estimates that about 7 million people die each year worldwide from exposure to fine particles.[23]

Road traffic emissions are recognized as significant in terms of total pollution loading of outside air. Sources of PM are highly variable, but it is recognized that fine particles are released from the incomplete combustion of fossil fuels, especially from diesel motor vehicles. Diesel vehicles have been definitively shown to substantially contribute to the overall emission of PM, emitting significantly higher levels of PM in comparison to petrol-fuelled equivalents.[14, 24, 25] Further compounding the expected adverse effects of increased HGV traffic in the region, HGVs have also been acknowledged to account for 19% of Ireland's annual GHG emissions according to the Department of Transport.[26] According to the EPA, diesel vehicles are the second largest source of $PM_{2.5}$ at roadside locations.[14] HGVs in Ireland are overwhelmingly powered by diesel, and 45% of the national HGV fleet is over 10 years old [26]. We refute any counter argument which might suggest that the emissions issues can be addressed by utilising a biodiesel or biofuel-powered fleet of HGVs. Interestingly, studies to date have indicated that a switch to a biodiesel fleet is not the answer; indeed, the use of biodiesel is considered to increase NOx and GHG emissions.[27] In addition, some studies have noted increased PM in biodiesel emissions from passenger cars under certain fuel types e.g. saturated or oxidised blends. [28] Additionally, heavy HGV traffic can be linked to non-exhaust emissions, such as those produced by the wearing down of brakes, tyres, road surfaces and from the resuspension of road dust.[14, 29] These non-exhaust emissions of PM constitute a little-known but rising share of all emissions arising from road traffic and are recognized to negatively impact on public health.

3.2. Emissions and dust generated during facility construction and operations.

Within the EIAR (EIAR Non-Technical Summary page 24), it is stated that *"there are no sensitive human or ecological receptors within the study area with respect to construction phase dust impacts"*. The construction phase of the proposed development, anticipated to span a year, will result in a significant influx of construction-related traffic on nearby roads—an aspect that has been underestimated, especially given the predicted concurrent construction of the adjacent gas-fired power plant. This increased level of traffic will substantially increase the generation of exhaust and non-exhaust emissions, and by extension PM_{10} and $PM_{2.5}$, in this quiet rural area. Increased dust and PM generation has already been observed along the R400 as a result of the construction traffic from the YRWF site, and lorries from the Kilmurray quarry and Roadstone site. Road verges in the area are now almost permanently dusted white with dust generated by this heavy traffic. However, given the proposed HGV traffic as presented in Oxigen's submission, there will be a significant, sustained increase in dust and PM generation along the R400, placing local residents, their children, and the elderly at greater risk of health issues due to the inevitable worsening air quality.

However, it has to be acknowledged that wind influences horizontal dispersion and can play an important role in modulating pollutant concentrations. [30] As such, meteorological data for the Derryarkin area was consulted. Wind speed and direction was obtained for the nearest meteorological monitoring station which was Derrygreenagh with the prevailing wind directions shown to be blowing from the west and east-south quadrants, between west (W), west southwest (WSW) and southwest (SW) directions **(Figure 14)**.

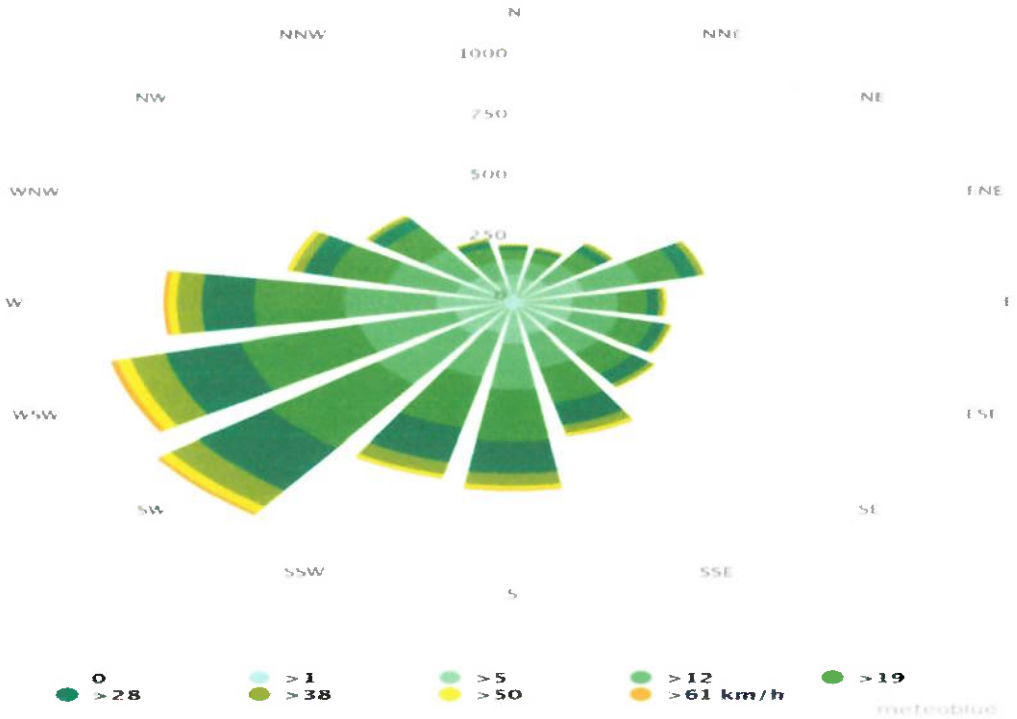


Figure 14: Derrygreenagh wind rose.

A wind rose provides a concise yet information-rich representation of all wind speed and direction distribution at Derrygreenagh. It is presented in a circular format, illustrating the frequency of winds originating from different directions. The length of each "spoke" around the circle corresponds to the frequency of wind blowing from a particular direction. Each concentric circle represents a different frequency, ranging from zero at the centre to increasing frequencies at the outer circles.[31]

Since the transport of particulate matter in the atmosphere is highly affected by the driving force of wind, a low wind speed condition would lead to small turbulence scales and consequently the spreading rate or dispersion of particles in atmosphere will be less.[32] As such calmer wind conditions with low wind speeds (<5m/s) would enable greater deposition of PM over shorter distances, resulting in particulates settling on the ground close to the source site. [32] The Derrygreenagh wind rose shown

above can be edited to show wind directions and speeds less than 5m/s **(Figure 15)**. This allows us to deduce that low speed winds frequently blow from the North through the site. Given the presence of a drainage ditch on the edge of the site and a stream along the southern site boundary, both of which feed directly into the Yellow River (which itself is approximately 800m from the site), there is increased risk of particulates entering this sensitive receptor.

Figure 15: Low wind speeds and wind direction on site.

Additionally, it is recognised that higher wind speed conditions would lead to large turbulence and greater spread of particles in the atmosphere. Winds with speeds exceeding 5m/s from the direction of the site that occur more than 10% of the time can be considered to increase the likelihood of dust and PM being blown from the site. Therefore, the impact of the spread of dust and PM from the site, both during the construction and operational phases, needs to be reconsidered in terms of wind dispersion as several studies have indicated that at these wind speeds PM and dust can be transported over 2km away from site. Given this potential extended dispersal range from the source, there may be a greater impact than expected in terms of sensitive receptors.

During the operational phase, activities within the proposed facility will also contribute to emissions, PM and dust. The proposed site will be accepting some waste types that are naturally dusty in nature. There is significant potential for dust and PM generation from activities on site including:

i. Dust raised from the mechanical loading and unloading or tipping of waste.
ii. Dust raised from stockpiles and storage of waste on site.
iii. Dust raised from wind scouring of waste surfaces.

iv. Dust raised from the handling and processing of waste though operations including crushing, screening and blending.

v. Dust raised from shredding of green waste such as timber.

vi. Dust raised from the processing of construction and demolition waste and the potential release of man-made fibres such as asbestos.

Based on the types of waste that will be accepted in this proposed facility different types of dust and particulate matter can be expected to be generated **(Table 4)**.

Table 4: Types of dust, chemicals and fibres generated from different waste types.

Particulate type	Examples of particulate	Waste types that may act as sources
General particulate matter	Deposited dust, suspended particulates, e.g. PM_{10}, $PM_{2.5}$	Many waste materials including household, commercial and construction/ demolition waste
	Cellulose-based particulates	Green waste, paper and packaging waste
Inorganic Species	Metals (e.g. lead, cadmium, mercury, copper, aluminium, vanadium, zinc)	Electronic and electrical waste components, ferrous and non-ferrous metal waste, Incinerator ash, batteries, glassware, leather, plastics, paint chips
Fibres	Asbestos, man-made mineral fibres (MMMFs)	Insulation materials, some building materials
Biologically active particles, (Microorganisms and bioaerosols)	Viable or total pathogens, bacterial toxins, bacterial endotoxins, cell wall components, β-glucans, fungal spores, viruses.	Municipal waste, composts, green waste, biosolids, industrial sludges from food processing and papermaking, faeces of domestic animals, clinical waste, sanitary waste, putrefying foods and packaging materials

This proposal lacks specific details regarding implementation of a dust abatement plan for the construction phase and completely lacks any mention of dust management plans for the operational phase. Without any abatement controls, the operational site has significant potential for dust and PM generation.

3.3. Carbon emissions

The United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol provide the basis for international action to address climate change. The objective of the UNFCCC is to stabilize GHG concentrations in the atmosphere at a level that would prevent dangerous human-induced interference with the climate system. Carbon dioxide (CO_2) is the primary GHG contributing

to recent climate change. Ireland has committed to reducing its CO_2 emissions by 4.8% per annum between 2021 – 2025 under the first carbon budget.

In the EIAR (EIAR Non-technical summary page 24) Oxigen has proposed figures for their total carbon emissions on site. By Oxigen's calculations they have equated the use of 65,520 litres (L) of diesel to 0.134 Tonnes CO_2. We dispute this figure and have presented our calculations of the overall annual carbon emissions which will result from this quantity of diesel used during the facilities operations. The following calculation was completed using conversion rates published by the Sustainable Energy Authority of Ireland (SEAI).[33]

From SEAI website it is stated that:

$$1L\ Diesel = 36.61\ mJ$$

The proposal states the volume of diesel that will be used in its annual operations so in line with the approach taken by Oxigen we will convert the volume of diesel (L) into megajoules (mJ). This however is an unnecessary step as SEAI provides a direct conversion rate from L to CO_2. However, we convert the total annual volume of diesel (L) to mJ per year as shown below:

$$65{,}920L = 36.61 * 65{,}520 = 2398687.2\ mJ$$

From the SEAI site, another conversion factor is available to convert mJ to grams of carbon dioxide (gCO_2):

$$1\ mJ = 73.3\ gCO_2$$

To convert the mJ value obtained above the calculation was carried out as follows:

$$2398687.2\ mJ = 73.3 * 2398687.2 = 175823771.8\ mJ$$

Next, the figure needs to be adjusted from gCO_2 to kilograms carbon dioxide ($kgCO_2$) as follows:

$$175823771.8\ gCO_2 = \frac{175823771.8}{1000} = 175823.7718\ kgCO_2$$

And finally, $kgCO_2$ is converted to tonnes CO_2 as follows:

$$175823.77188\ kgCO_2 = \frac{175823.77188}{1000} = 175.8237718\ Tonnes\ CO_2$$

This figure obtained for carbon emissions arising from only the use of the diesel on site is a thousand-fold higher than those proposed by Oxigen (who stated it would equate to 0.134T CO_2). This revised calculation is important as it represents a significantly greater impact on air quality and climate. It is evident that diesel consumption at this level contributes significantly to the carbon footprint of the project. Given the miscalculation of this carbon emissions related to the use of diesel on site, we

remain concerned about the potential significant carbon emissions associated with this proposed development and the associated detrimental effects on the environment and climate.

3.4. Noxious odours

Oxigen has previously acknowledged in proposals for other facilities that there is the potential for the generation of odour from the brown bin material and domestic waste. Both brown bin material and domestic rubbish fall under the category of MSW which has been listed under the materials that this facility will be accepting. Uncontrolled odour from waste facilities can impact nearby communities and, often, will lead to annoyance and ongoing complaints. Studies have investigated the possible link between odour exposure, highlighting the direct impact on human health and wellbeing. [34-37] Physical health impacts caused by odour exposure can include nausea, reduced appetite, congestion, sensory and respiratory irritation, headaches dizziness and sleep problems and psychological effects.[34-38]

Based on recent investigations into past behaviours and court cases against this company, the community has no faith that any attempts by Oxigen to mitigate these odours will be successful. To support these valid assumptions, we present the prime example of the Corranure landfill site in Cavan which was operated by Oxigen Environmental Ltd from 2007. Over a 6-month period the Environmental Protection Agency (EPA) was flooded with complaints from residents in the region regarding nuisance smells emanating from the site. Due to the volume of complaints the EPA carried out an inspection of the locality, determining that odours from the facility could be detected over 3km away from the site, in residential properties, commercial properties and schools. This is a significant negative impact on the locality. Cavan County Council were issued with a non-compliance notification in terms of its license for operating this facility. Oxigen stated that they had implemented corrective action to prevent further release of nuisance odours yet records from the EPA indicate that complaints regarding the smell continued to be lodged. Following legal action by the EPA, Cavan County Council was fined €260,000 and Oxigen was fined €780,000 (€10,000 per week that they failed to address the issue). This facility was subsequently closed to waste in 2010 when the EPA decided to retain Cavan County Council as the licensee of the site and refused to allow the transfer of the license for full operations to Oxigen who had been running the facility. The community believes this is a key indicator of the lack of trust the EPA had in Oxigen, directly reflecting the failure of Oxigen to address the odour issues and further highlighting my theory that the proposed biofiltration activities proposed by Oxigen to reduce nuisance odours were, and still will be, inadequate. In their statement the EPA stated that "it refused to grant a waste license to Oxigen Environmental because it was not satisfied that the activity carried out by the company on site would not cause environmental pollution".[39, 40] We believe

it is also important to note the EPA also implemented new restrictions on Cavan County Council in relation to the allowed intake of waste, which it reduced from 90,000 tonnes to 45,000 tonnes in an effort to limit the possibility of the release of noxious odours, yet this proposed development by Oxigen is aiming to process 90,000 tonnes of mixed waste which they have previously shown themselves to be incapable of handling without causing significant disruption and discomfort to the people living in the area.

Oxigen's site at Coe's road in Dundalk Louth was the second most complained about waste facility in 2015 according to EPA reports. In response to complaints Oxigen has been handed fines in excess of €9,000 over the years; this includes a fine of €1000 for odour nuisance in 2013 and a €2500 fine for the flagrant breeching of Oxigen's waste collection permit and failure to properly segregate mixed dry recyclable waste and domestic waste, a case which was brought against them by Louth County Council itself. Finally, we also wish to point you to the case of Oxigen's facility at Merrywell industrial estate in Ballymount Dublin which was the site of a 5-day blaze, which substantially impacted on the air quality of the neighbouring residents; an incident which subsequently saw the EPA fine Oxigen €18,000. The EPA's report stated that Oxigen was holding waste in a manner which was likely to endanger human health or harm the environment by risk of fire, surface water contamination and nuisance through odour prior to the fire". This is not the first or last fire which has occurred at an Oxigen facility in Ireland, with the most recent occurring in 2022 in its Dundalk recycling facility. This all points to lax practices within these facilities and is quiet worrying in the context of this proposed development's location in the heart of bogland with ample scrub and woodland which poses a significant risk if a fire were to break out in the facility. Both the lack of adequate measures to ensure that Oxigen's facilities do not release noxious odours into the local environment and the risk of repeat fires breaking out at this proposed facility thereby releasing particulate matter generated by the burning of different waste materials into the environment will now be in direct contravention of Ireland's Clean Air Strategy which has just been introduced in 2023 reduce air pollution and promote cleaner ambient air.

4. Impact on geology

Any excavation works which remove the protective subsoil within this development will expose the underlying rock to sources of contamination. This proposal states that the subsoils present consist of 'cut over raised peat' (Cut). Other deposits in the study area include 'gravels derived from limestones' (GLs) west and southwest of the proposed development site and 'till derived from limestones' (TLs) northeast of the proposed development site. In the EIAR the baseline assessment stated *"The intrusive site investigations completed within the proposed development site generally encountered concrete,*

made ground/fill or topsoil ranging from 0.1 to 0.8m in thickness overlying clayey and/or fine to coarse sandy gravel with occasional to many cobbles to a maximum depth of 12.0m BGL. Layers of silt, clay, sand, and clay were noted at some locations. No peat was noted during the site investigation, but shallow soils in TP1, TP3 and TP4 were noted as 'organic' or containing 'organic matter' to 1.1m. Soils during the site investigation were closer to the GSI description of 'gravels derived from limestones' located west and southwest of the site." [11] The hydrogeological characteristics of the region, particularly the underlying rock type, are crucial for understanding the sustainability of any development project. Consultation with the 2021 Geological Survey of Ireland (GSI) 1:50,000 Quaternary Geology of Ireland Map determined that the bedrock in this region is Lucan formation limestone and shale, also referred to as 'Calp'. The Lucan Formation, which underlies the site in question, is classified by the Geological Survey of Ireland (GSI) as a 'Locally Important Aquifer (Ll).' This designation signifies the aquifer's significance as a source of groundwater. The assessment of groundwater vulnerability for the proposed site is a matter of significant concern. Oxigen's reports state that the groundwater vulnerability is "Moderate", and this is "due to the presence of low permeability deposits of peat" as per the GSI. This is a direct contradiction of the baseline study data which showed there was in fact no peat on the site. This can only be seen to be a deliberate misuse of GSI data since GSI classifications are based on the generalized geological information regarding soil and rock type for a region and does not in fact carry out time and money intensive surveys to determine the vulnerability of every location. Therefore, the information provided by GSI cannot be taken as absolute and requires validation. The invasive survey carried out on behalf of Oxigen was in fact the confirmatory data needed to substantiate the "Moderate" groundwater vulnerability claim. However, his invasive survey did not provide a favourable outcome for Oxigen; instead, it showed that the site was not protected by a blanket bog, but instead lacked any peat cover, and was situated above extensive gravel beds prime for drainage and water flow. These findings should have been worrying for both the developer and Offaly County Council. The presence of a thick layer of sandy gravel at the site can significantly impact groundwater vulnerability. Sandy gravel is generally more permeable than peat, which means it may allow for faster groundwater movement and potentially greater susceptibility to contamination. However, in this instance, Oxigen has avoided discussing the survey findings honestly within the EIAR and has instead dishonestly stated *"The Groundwater Vulnerability is classified by the GSI as 'Moderate' at the proposed development site due to the presence of low permeability deposits (peat). GSI mapping indicates a total thickness of overburden of 5 to 10 metres".* A quick check on other planned developments would have also raised questions regarding this groundwater classification. While the initial baseline classification in this report suggests 'moderate' vulnerability based on the generalized data from GSI,[11] a look to the nearby Bord na Mona Drumman

site which was submitted for consideration for a very similar development with AES would have mooted the "Moderate" claim. At the Drumman site the groundwater vulnerability was also classified as "Moderate" based on the GSI data. However, this initial assessment based on the findings from trial pit excavations and probes has been challenged in a similar proposed development at the Drumman site located nearby. It was concluded through an intensive survey that the thickness and permeability of the strata, as determined through fieldwork in the area, indicates a high vulnerability. We also wish to point reviewers to the Firewater Risk Assessment which was conducted by Fehily Timony as part of Oxigen's proposal bundle.[41] In this report (Fire Risk Assessment page 10) where their own proposal documents effectively refute the "Moderate" groundwater vulnerability classification which was presented in their EIAR (EIAR Volume 1 – Non-Technical Summary page 33) and instead have revised the groundwater vulnerability classification to "High". To quote the Firewater Risk Assessment it states *"The Groundwater Vulnerability is classified by the GSI as "Moderate" at the proposed development site due to the presence of low permeability deposits (peat). GSI mapping indicates a total thickness of overburden of 5 to 10 metres (GSI, 2021). The intrusive site investigation indicated peat was not present at the site, however a layer of gravel greater than 10m was present. The vulnerability of "Moderate" based on GSI is reclassified to "High" based on the sandy gravel at the site."* [41]

High vulnerability implies a greater risk of contamination or depletion of the aquifer. Considering the aquifer classification as 'Locally Important' and the newly assessed high vulnerability, it is imperative that the appropriate resource protection measures are in place. The classification of the resource protection zone as Ll/H (Locally Important aquifer with High vulnerability) underscores the need for enhanced safeguards to protect this vital water resource. Given the hydrogeological characteristics of the region, it is crucial that any proposed development in this area considers the potential impacts on the groundwater supply and ensures adequate protective measures. The high vulnerability assessment should trigger a thorough examination of the proposed project's potential consequences on the aquifer, as well as rigorous mitigation strategies. We kindly request that the planning department thoroughly assess the implications of the hydrogeological data provided and carefully consider these concerns when reviewing the application for Oxigen's facility at Derryarkin, Co. Offaly. It is essential to prioritize the preservation and responsible management of our local water resources.

5. Impact on hydrology and water quality

After careful examination of the project details and its potential impacts on the environment, the community wishes to raise their significant concerns about several aspects of the proposal, particularly

those related to flood risk, surface water management, wastewater discharge and environmental contamination.

5.1. *Proximity to the watercourses*

As stated, the proposed development site is within the Yellow River sub-catchment. The Yellow River drains an estimated catchment area of 44.5 km^2 in Co. Offaly to the west of Edenderry which includes Rhode and Castlejordan. The developer's submission includes a site map superimposed in **Figure 16** which it is evident the main watercourses in the area, notably the Yellow River but also the Big river, are located in close proximity to the site. On a more worrying note, there is a contributory stream, which Oxigen refers to as a drainage ditch, which runs within 6 meters of the site. This is an exceptional environmental risk, which is further compounded by the fact the Oxigen intends to construct concrete channels at the edge of the site to allow un-off into this contributary stream. This puts the Yellow River, Big River, Castlejordan River and indeed the entire Boyne River SAC at risk from environmental pollution.

Figure 16: Watercourse proximity to proposed site.

5.2. *Potential pollution during in-channel works.*

In the CEMP (page 28) it is stated that some works will need to take place within the drainage channel during headwall construction. Despite using a pre-cast headwall there is still the potential for concrete material to enter the surface water run-off. Concrete run-off is basically a slurry of fine cement particles

in water or suspended sediments. When illegally discharged into fish-bearing waterways, it can clog fish gills, reducing the availability of oxygen to the fish leading to death. It also has the potential to smother the aquatic environment, damaging this already fragile ecosystem. Additionally, concrete run-off will increase the turbidity of the receiving water, reducing the amount of sunlight reaching underwater plants, also known as Submerged Aquatic Vegetation (SAQ), which will directly impact on the concentration of oxygen available in the receiving aquatic environment. Concrete run-off can also alter the pH of the receiving waters, in some instances increasing the pH levels up to 11 which is exceptionally alkaline (normal peatland and fen water pH is usually pH 6-8). This can have a negative impact on aquatic species in the locality. As regards the proposed damming of the drainage channel to facilitate the construction of the headwall and run-off channel we query the effectiveness of pea gravel bags combined with a geosynthetic textile in preventing water entering the site of work. If the aim is to create a dam-like structure in a drainage channel to temporarily hold back or redirect water, using pea gravel bags within geosynthetic textiles is not the most suitable approach, as it is intended for erosion control and stabilization rather than water containment. Geosynthetic textiles are designed to be permeable and allow water to pass through while retaining soil particles and sediment. Combining geotextiles with pea gravel offer stability within the drainage channel but still maintain permeability. Given that this "damming" is occurring upstream of the work site there is the potential for water to pass through this barrier and carry concrete downstream towards the Yellow River. Finally, the proposed pumping of water upstream of the dam to a section of the drainage channel downstream from the work site endangers aquatic species in the watercourse.

5.2. Surface water and run-off management

Rainwater will fall on outdoor storage area in waste recovery and recycling facilities, becoming contaminated with pollutants such as heavy metals, polycyclic aromatic hydrocarbons, and polychlorinated biphenyls, via contact with the stored materials.[42] This polluted rainwater is legally considered as industrial wastewater, and the polluting substances contained in the rainwater runoff at the point of discharge are considered as emissions into water.[42] The flow rate depends mainly on the amount of rainfall, while the composition depends both on the amount of rainfall and on the composition and leaching behaviour of the materials stored on the site.[43] Considering the diverse nature of materials to be handled by this proposed facility, there exists a substantial risk of leaching of dangerous chemicals and compounds into the watercourse via rainwater runoff. Furthermore, atmospheric deposition can also contribute to the contamination of rainwater runoff from within the storage area. This deposition may be linked to different sources of emissions into the atmosphere, such as dust-generating activities or combustion processes, both at the recovery and recycling sites

themselves, or in the immediate or wider vicinity. It is evident that the development will alter the natural landscape in the area, increasing impermeable surfaces, and potentially leading to elevated surface water flow. One of the most significant concerns rising from this proposed development is the potential increase in the volume of surface water runoff, accompanied by a corresponding rise in the concentration of suspended solids content in runoff. Without even considering the risk of contaminants, this heightened level of runoff poses a risk of overwhelming existing drainage systems and natural watercourses, potentially leading to localized flooding and erosion. Furthermore, it is important to note that some of the on-site rainwater is collected in underground tanks for storage. This gives rise to an elevated potential for the accumulation of contaminated rainwater within these tanks. Such a scenario is concerning as it allows particulates and other leachable contaminants to concentrate within this storage system. This could pose problems in the event of an accidental overflow or release from the tanks into the surrounding environment, or if the water held within these tanks must be utilized for firefighting purposes, as per the developers' plans.

Lastly, there is a heightened risk of hydrocarbon runoff resulting from spillages within the site and the potential for pollution due to accidental spills, which is a significant concern for the community. The use of bunds, spill mats, or drip trays, while providing some protection in the immediate refuelling areas, does not prevent accidental spills or leakage from equipment across the primary area of the site. The efficacy of spill kits and other spill mitigation measures may be limited, especially on a busy site where immediate detection of a spill is unlikely. In the event of a spill, these hydrocarbons have the potential to enter the existing watercourse, located less than 80 meters away from the site boundaries. Overall, we believe there is a heightened risk of detrimental effects on the local aquatic ecosystems and decreased water quality arising from runoff coming directly from this proposed site.

In their proposal Oxigen states that the Water Framework Directive (WFD) risk status of the Yellow River waterbody is "At Risk". Studies have conclusively shown that industrial cutaway peatland in Ireland contains high concentrations of ammonium and ammonia compared to values reported for intact sites,[44] a fact which has been noted in Oxigen's report. Therefore, it is essential to recognize the already elevated levels of naturally occurring ammonia in the receiving waters surrounding this proposed development. In Ireland, concentrations greater than the 0.065 mg/l threshold would mean the water body would fall short of Good Ecological Status. Given the importance of the Yellow River as a natural resource, a more detailed evaluation of the proposed wastewater discharge's potential effects on water quality and aquatic ecosystems is warranted. We have noted that this facility will not be the only site where run-off and wastewater can enter the local watercourses, indeed the

wastewater treatment plant in Coolcur road releases treated wastewater into the Coolcur stream which then flows into the Yellow River which progresses on into the Boyne River. Nitrogenous based run-off from this proposed site has the potential to destroy the Yellow River ecology once and for all, with increasing nitrogen levels leading to algal blooms in both the Yellow River, and if unchecked, spreading out into the Boyne River, suffocating aquatic plants, fish, and fauna. Therefore, the cumulative effects of multiple discharge and run-off sites need to be carefully evaluated in terms of the changing profile of Total Suspended Solids (TSS), Chemical Oxygen Demand (COD), Biological Oxygen Demand$_5$ (BOD_5), Total Nitrogen, Total Phosphorous, Heavy metal, and Ammonia in the immediate and local watercourses.

5.3. Increased Flood risk

With regards to flood risk, there is a notable absence of a comprehensive flood risk assessment has within the been carried out. While the developer may contend that the site's impact on river flows is minimal, it's crucial to recognize that even a slight increase in river flow, even by a mere 20mm, may have significant consequences downstream, particularly during rare 1-in-100-year flood events. Furthermore, it is imperative to consider the cumulative effects stemming from the unattenuated drainage originating from this site and neighbouring developments, such as the proposed Derrygreenagh power station. The potential for even a relatively modest 70mm rise in flood levels downstream, albeit categorized as of low significance, underscores the importance of a comprehensive assessment of potential cumulative impacts, especially when considering the available flood plain along the banks of the Yellow River. The absence of a comprehensive flood risk assessment raises concerns not only for the immediate site but also for the broader downstream environment and neighbouring developments. In light of the potential consequences associated with flood events, it is imperative that a rigorous assessment of flood risk be conducted, taking into account the cumulative effects of development in the area. Such an assessment is essential to ensure the responsible and sustainable planning of the proposed development.

5.4. Wastewater management

In terms of wastewater management, the proposed plan includes an on-site wastewater treatment plant with associated percolation and ancillary services. Additionally, a collection tank is proposed to collect run-off drained from external waste storage bays. According to this proposal, this foul polluted water will need to be dispatched off-site for safe disposal at an authorized wastewater treatment facility. This arrangement raises significant concerns for the community, notably as it indicates that the facility lacks the inherent capability to treat fouled water on-site, and there will not be filtration

processes implemented to remove contaminants. Consequently, there exists the potential for untreated and contaminated wastewater to inadvertently enter the Yellow River, particularly in the event of an accidental leak or overspill. Such a scenario underscores the establishment of a worrisome precedent, allowing facilities to store contaminated runoff when they lack the requisite processes for wastewater treatment and purification. This situation prompts a series of pressing questions that demand answers. Specifically, inquiries must be made regarding the on-site monitoring of this wastewater, the transport logistics to a treatment facility, the potential strain imposed on the treatment plant by the volumes of wastewater generated on-site, and the comprehensive safety precautions in place to address the possibility of accidental releases into local watercourses. It is crucial to address these concerns comprehensively, as safeguarding the local environment and water quality is of paramount importance when assessing the viability of the proposed development.

5.5. Presence of a groundwater well

We also wish to raise concerns regarding the presence of a groundwater well on site **(Figure 17)**, which has not been considered nor addressed in this EIA. The presence of a well on the proposed development site is a significant factor that should be taken into consideration when assessing groundwater vulnerability and the potential impact of the development on groundwater resources. Wells are directly connected to the underlying aquifers and can have a substantial influence on local groundwater dynamics. Given the known characteristics of the site's geological and soil composition, as well as the 'Moderate' Groundwater Vulnerability classification by the Geological Survey of Ireland (GSI), the existence of a well introduces potential risks. These risks include:

(i) Groundwater Contamination: The construction and operation of the proposed development, especially if it involves activities that could introduce contaminants into the ground, may pose a risk of groundwater contamination. This risk is heightened due to the presence of a well on-site, as any pollutants introduced into the soil may migrate to the aquifer and impact the quality of groundwater.

(ii) Groundwater Level Changes: The extraction of groundwater from the on-site well may influence local groundwater levels. If not managed properly, excessive groundwater pumping can lead to subsidence, decreased water availability for neighbouring wells, and other adverse effects on the hydrogeological environment.

(iii) Monitoring and Mitigation: It is essential that the proposed development includes robust monitoring and mitigation measures to prevent any adverse impacts on the on-site well, neighbouring wells, and the broader groundwater system. Adequate protective measures should be taken to safeguard this valuable water source and the surrounding aquifer.

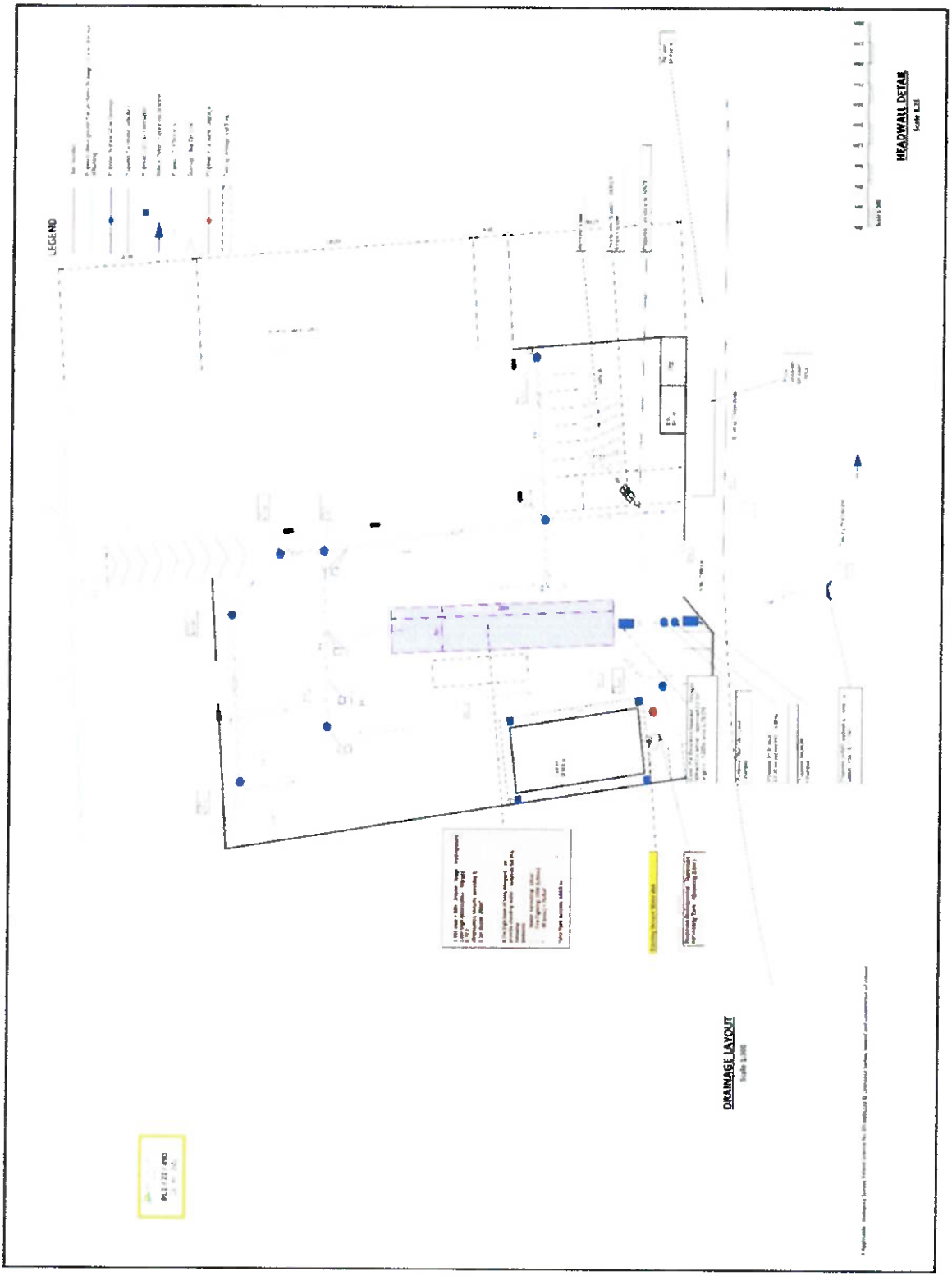


Figure 17: Site plan.

The location of the on-site groundwater well is indicated in yellow. In addition, the presence of rainwater underground storage tanks and the underground wastewater storage tanks are shown in pink.

The close proximity of the rainwater collection tanks and the wastewater collection tanks to this groundwater well is profoundly worrying, raising alarms among local residents due to the potential risks associated with the co-location of these tanks in relation to the groundwater well. The primary cause for unease stems from the potential presence of contaminated water within these storage tanks. In the event of a spill, leak, or malfunction within the tanks, there exists a genuine concern that pollutants or hazardous substances could infiltrate the surrounding soil and ultimately find their way into the nearby groundwater supply, which offers a direct route into the underlying aquifer. The aquifer, which serves as a vital source of clean and potable groundwater for the community, could be at risk of contamination, thereby jeopardizing the safety and integrity of the local water supply for all East Offaly. In light of the well's presence, it is imperative that the planning authority conducts a comprehensive assessment of the potential interactions between the proposed development and the well, including an evaluation of the well's yield, the wellhead protection zone, and the potential for groundwater level changes. This assessment should inform the decision-making process and any conditions imposed on the development to mitigate risks and protect groundwater resources. Protecting the quality and accessibility of the groundwater, which is essential for the well-being of the community, must be a paramount consideration in the decision-making process regarding this development.

5.6. Risk to East Offaly water supply

The proposed development lies within 4.4km of Toberdaly well, which is contained within a Public Supply resource protection area. Toberdaly well is the largest source of groundwater supply in Offaly. While this site falls slightly outside of the designated zone of containment for the Rhode water supply and Toberdaly well, it is imperative to acknowledge the influential role of the local geology in groundwater movement. The local karst-like landscape carries the potential for unrecognized preferential pathways beneath the surface which have previously not been documented. To underscore our concerns, we wish to direct your attention to the government's own groundwater reports, particularly sections relating to Toberdaly well and Rhode's groundwater body.[45] At the surface, the spring is situated at a contact between impure limestones and pure bedded limestones, around 300m south of a fault.[46, 47] One of the critical concerns the community wishes to emphasize is related to the temperature of the groundwater sourced from Toberdaly Springs. The temperature of the groundwater from Toberdaly Springs is approximately 2° warmer than the average expected groundwater temperature.[45] This discrepancy strongly suggests a geothermal origin for some of the groundwater in the area. Moreover, there may be a potential connection between the volcanic hills to the west, particularly Croghan Hill, and the western strip of Allenwood Limestone located around the

Toberdaly well region.[45] Hudson proposed that water flows from the volcanic hills and moves underground, confined beneath the Calp geological formation, ultimately surfacing upon contact with the Allenwood Formation via an unseen major fault.[45] This is further supported by the marking of a NE-SW trending fault on recent geology maps to the north-west of Toberdaly House, however the exact position of the fault is uncertain.[45] If this theory holds true, it raises significant questions about the potential impact of the proposed project on this geothermal aquifer system. Furthermore, it is crucial to consider the factors influencing groundwater recharge in the area. According to available data, recharge is more likely to occur where the subsoil thickness is lowest or where the permeability of overlying subsoil is highest. Examples include the gravel deposits and the till-with-limestone gravel identified within this proposed development. Any disturbance or alteration to these areas could have profound consequences on groundwater flow patterns and quality.

Considering these concerns, we respectfully request that the Planning Department conducts a comprehensive hydrogeological assessment as part of the environmental impact assessment for the proposed project. This assessment should include a thorough investigation into the potential geothermal implications, the presence of any unseen major faults, and the possible effects of the project on groundwater recharge dynamics in the area. Furthermore, we strongly urge the Planning Department to engage independent experts in hydrogeology and geothermal studies to ensure an unbiased and accurate evaluation of the project's environmental impact. The results of such assessments should be made available to the public for transparent decision-making.

6. Impact on flora and fauna

According to the EIAR (EIAR Non-Technical Summary page 17) no protected flora or fauna were detected during the survey carried out at this development site. According to their report a total of 38 Red or Amber-listed bird species, as per Gilbert *et al.*[48], have been recorded within the wider area. Oxigen states that there were no observations of Whooper swans using the proposed development site to roost or feed during the vantage point surveys and no other species were observed within the boundary of the proposed development site during the survey undertaken on **17th June 2021**. As a community, we believe this site survey was extremely limited in its scope and a more substantial, independent review of the local flora and fauna is warranted. We will outline our concerns regarding avian species, aquatic species, mammals, and flora below.

6.1. Inadequate survey of Avian species on site

Our first area of concern is the provided bird surveys carried out as part of this proposal. Our first challenge lies with the statement that no whooper swans were detected on site on the survey date. Whooper swans (*Cygnus cygnus*) are migratory birds which breed and nest in the Northern Palearctic (Iceland , northern Scandinavia, East Russia) [49] and travel to Ireland to winter on lowland open farmland around inland wetlands. According to BirdWatch Ireland, the southerly migration of Whooper swans from Iceland to Ireland only begins in mid-October to November, with the return migration to their Icelandic breeding sites taking place between March and April. Whooper swans are Amber listed in Birds of Conservation Concern in the UK and Ireland, [48] and are listed under Annex I of the EU Birds Directive (EU 79/409/EEC).[50] Under this directive, EU Member states are required to maintain populations of rare and migratory bird species that are listed under Annex I by establishing designated areas – Special Protection Areas (SPA) - for the conservation of these species. Whooper Swans are further protected as they are listed under Annex II of the Berne Convention on the conservation of wildlife and natural habitats (commonly known as the Berne Convention), and are also amber listed in 'Birds of Conservation Concern in Ireland' [51, 52] as the numbers of Whooper Swan that winter in Ireland are internationally important.

Based on these well documented migratory patterns the community can confidently state that this facet of the biodiversity survey was exceptionally biased and deliberately misdirecting, serving as a significant limitation of the data presented in the proposal. Field observations of ringed or tagged Whooper swans have indicated that they travel to the same areas each winter, therefore previous surveys recording their presence in an area can predict future visits. Biodiversity maps (obtained from https://maps.biodiversityireland.ie/) indicated the recorded presence of Whooper swans across Ireland and specifically at Derryarkin **(Figure 18)**.

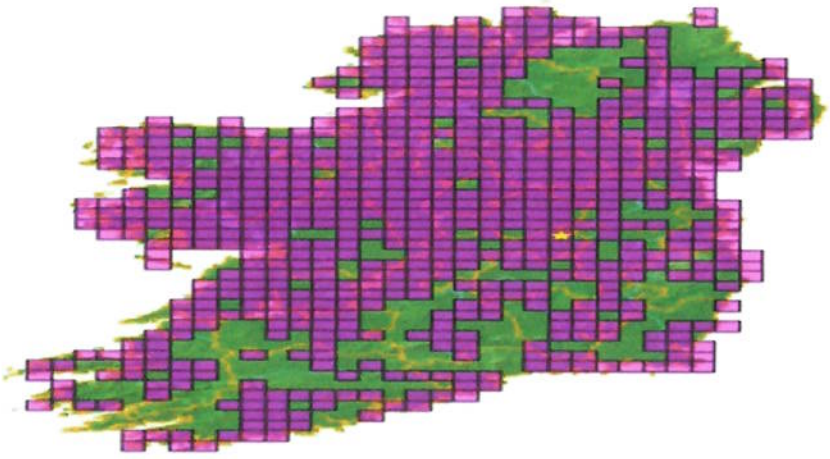


Figure 18: Biodiversity map for Whooper swans as of 23 September 2023.

Consultation with any of the previous planning applications in the same area e.g., YRWF, would have highlighted this discrepancy in the survey by Oxigen. Indeed, data from the Natura Impact and Biodiversity survey conducted for the YRWF site by Biosphere Environmental Services provides solid evidence regarding the presence of whooper swans within range of this site area.[53] In the biodiversity survey for the YRWF, the study for Whooper swans was conducted in the correct period, with winter surveys being conducted from October through to April. In total 15 site surveys were conducted over this extended period in contrast to the one single site visit conducted in Oxigen's application. In that biodiversity study it was concluded that the improved grassland fields at Derryarkin farm provided suitable habitat for Whooper Swans and grassland feeding waders (including Lapwing, Golden Plover, Curlew).[53] As part of that survey, detailed observations of the usage of these fields through the winter are presented. Using their findings, the figure below indicates the identified feeding grounds for this Whooper swan population **(Figure 19)**.[53] Regular feeding grounds for these swans are located to the south southeast quadrant all the way anticlockwise through to the north northwest quadrant. From Biosphere's survey, whoopers Swans were recorded in the improved grassland fields of the Derryarkin Farm sector in 10 of 15 winter visits between November 2012 and April 2013. The fields most often used were those adjoining the quarry complex, and especially fields no. 1 and 2 **(see Figure 19)**. Swans were also recorded within fields no. 3, 4 and 5, and signs of recent usage were found in fields no. 6 and 7. Numbers ranged from 3 to 82 and it was documented in December 2012 that over 100 swans were present in this location.

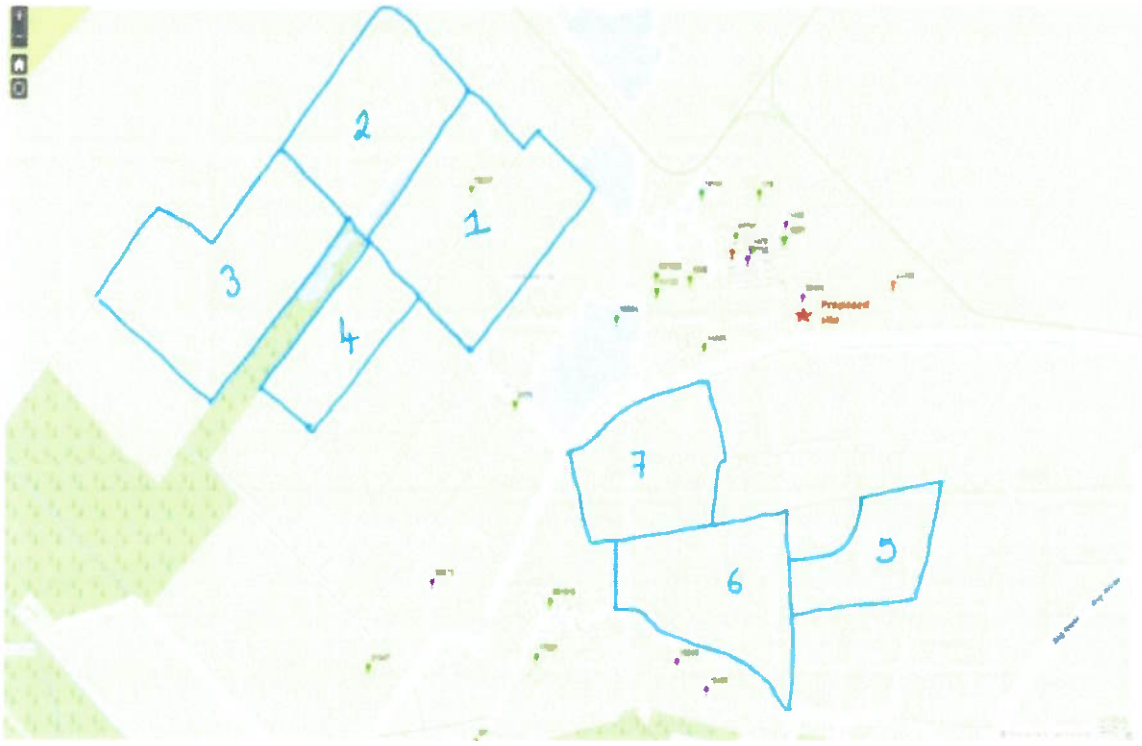


Figure 19: Feeding grounds for whooper swans within Derryarkin.

Using the YRWF findings, the figure below indicates the proximity of the proposed Oxigen site to the closest established feeding grounds for these swans. Fields 5 and 6 **(as per Figure 19)** are less than 300m away and Field 1 is approximately 750m from this proposed development **(Figure 20)**. The YRWF study indicated that during daylight, the swans fed almost continuously and generally flew only short distances within the fields in response to feeding patterns or local disturbance. Therefore, given the proximity to Oxigen's proposed site, noise generated through daily activities will definitely disturb the feeding patterns of these winter visitors.

Figure 20: Distance to nearest Whooper swan feeding sites.

Studies have indicated that Whooper swans will feed almost continuously during the day before leaving their feeding sites at dusk to congregate at evening roosts.[54, 55] This previous study as part of the YRWF application indicated that the Derryarkin cutaway bog, comprised of the areas which adjoin

Derryarkin farm to the north, northwest and northeast, where the quarry complex is located, provided feeding opportunities on wet bog and a safe roost site for these swans. These sites which we have detailed are part of a wider complex of sites used by these swans in the areas surrounding Rhode village. The presence of Whooper Swan is significant as this species occurred within the Derryarkin area on a regular basis. Bord na Mona conducted a winter bird survey across their numerous sites in 2012/13 and indicated that Derryarkin was of local higher value for Whooper swans.[56] The British Trust for Ornithology (BTO) provided any data that had been submitted via its platform for Derryarkin Co. Offaly. This data indicated the presence of Whooper swans annually at this site since the last Whooper Swan census in 2015 (Table 5).

Table 5: Whooper swan populations in Derryarkin obtained from BTO.

Year	Total number Whooper swans
2021	80
2020	54
2019	95
2018	121

However, it must be cautioned that BTOs records are incomplete and only hold those sightings which are reported directly to them. Birdwatch Ireland is the main organisation which records information regarding bird populations within Ireland. According to Birdwatch Irelands Irish Wetland Birds survey for 2022/2023, 110 Whooper swans were observed in Derryarkin last year. However, in the wake of a follow-up in person conservation with scientific officers within the organisation, we feel it must be made clear that in this i-WeBS survey this specific location of Derryarkin is not monitored for specific bird populations. Indeed, the closest sites under survey are Lough Ennell and Raheen Lough. According to Birdwatch Ireland, the data that is on file for Derryarkin is the result of submissions outside of their surveillance teams and they concede that the numbers of different avian species at the Derryarkin site may well be in excess of the recorded figures, with the potential to exceed the national 1% level for national importance. Bearing in mind this paucity of reliable survey data for this region, we demand a full complete, comprehensive independent wildlife survey is completed for the area. With increased focus on increasing the numbers of endangered and migratory species in Ireland it is particularly concerning that one of this swan's highly frequented roosting and feeding sites in and around the Derryarkin site will be disrupted by this development.

In Ireland we have 24 species of seabirds, dependent on the marine environment for most or all the year, and breeding in Ireland on our spectacular cliffs and islands. BirdWatch Ireland is actively involved in the monitoring of Ireland's seabird populations to help ensure we maintain and enhance their numbers into the future. According to BirdWatch Ireland, the first national seabird census was undertaken in 1969-70 (Operation Seafarer), the second 1985-88 (Seabird Colony Register), and the most recent complete one was 'Seabird 2000' spanning 1998-2002. The 2019 breeding season will mark the final year of the fourth census 'Seabirds Count' with the results due to be released next year. Seabird populations become important in the context of Derryarkin and its qualification as a site of National importance for one such bird. In 2014 Bord na Mona engaged consultants to conduct a survey of Derryarkin.[56] Based on data obtained from the Seabird 2000 national seabird census [57, 58] a national population estimate of 13,983 pairs of Black headed gulls (*Larus ridibundus*) can be deduced for the period 1998-2002, with the bulk of the breeding birds in Northern Ireland **(Figure 21)**. Even with a lower estimate of 150 pairs at Derryarkin (but possibly up to 200 breeding pairs) the colony exceeds the 1% national threshold as per the Seabird census 2000. This meant that Derryarkin subsequently qualified as being of National Importance on the basis of the breeding colony of Black-headed Gull.[56] Given the lack of official monitoring of the Derryarkin site annually by BirdWatch Ireland, new data regarding this red listed species will not be available until next year at the latest with the publication of the last seabird census.

Figure 21: The red listed Black headed gull.

We also wish to highlight that bord na Mona's bird survey also indicated the presence of breeding pairs of wader birds including ringed plover (n = 8 pairs), lapwing (*Vanellus vanellus*, n = 5 pairs), snipe (*Gallinago gallinago*, n = 4 pairs), common sandpipers (*Actitis hypoleucos*, n = 1 pair) at Derryarkin in addition to breeding pairs of Mute swan, Teal and Little Grebe.[56] More recent data obtained from BirdWatch Ireland's i-WeBS data also reported more recent sightings of wetland birds at the Derryarkin site **(Table 6)**. Once again, it must be cautioned that these numbers are significantly underestimated as BirdWatch Ireland does not actively monitor the Derryarkin site.

Table 6: Recent sightings of wetland birds at Derryarkin.

Common Name	Species Name	2022/23 sightings
Whooper Swan	*Cygnus cygnus*	110
Golden Plover	Pluvialis apricaria	320
Lapwing	Vanellus vanellus	250

The Bord na Mona survey also reported sightings of juvenile little ringed plovers (*Charadrius dubius*) **(Figure 22)**.

Figure 22: The little ringed plover. A recent rare colonist of Ireland.

Data obtained from the British Trust for Ornithology (BTO) provides more evidence that the little ringed plover has been sighted in Derryarkin, Co. Offaly as recently as 19/09/2023 **(Figure 23)**.[59]

Species	Scientific Name	Site	Grid ref	Tetrad	10km Squar	Latitud	Longitu	Countr	Date
Little Ringed Plover	Charadrius dubius	Derryarkin, Co. Offaly, Ireland	IN4836	Y	IN43	53.3809	-7.2704	ER-	19/09/2023

Figure 23: Recent BTO record of little ringed plover sighting at Derryarkin Offaly.

According to the Irish Rare Breeding Birds Panel (IRBBP) there are currently less than two breeding pairs recorded throughout the Republic of Ireland. All previous sightings have been recorded at inland sites in Southern and Eastern counties. This bird species is a ground nester, and its preferred natural nesting habitat are lakes, gravel and sand pits and disused waterworks. Therefore, a sighting of this only recent colonist of Ireland at the Derryarkin site is in line with what we know about its preferred habitat. This sighting could indicate a new settlement of an exceptionally rare bird which requires further investigation.

6.2. Inadequate survey of Aquatic species

The River Boyne and River Blackwater Special Area of Conservation (SAC) and Special Protection Area (SPA) is located approximately 20km downstream from Oxigen's proposed development at Derryarkin,

with a direct hydrological link via the Yellow River and nearby Mongagh River **(Figure 24)**. The hydrological link between the Yellow River and these SACs endows added importance and weight to environmental impact assessments and biodiversity studies in the region. Therefore, it is critically important that such studies are of a robust design and there is no leeway for doubt. In this instance we believe that Oxigen's EIAR falls short. Due to the proposed drainage across the development and the sites proximity to the Yellow River, which itself feeds into the Boyne SAC, we believe the impact of the development on aquatic species and the wider impact of potential pollution incidences on this region needs to be considered.

Three indigenous species of lamprey occur in Ireland; the non-parasitic resident brook lamprey (*Lampetra planeri*), the parasitic, anadromous river lamprey (*Lampetra fluviatilis*) and the sea lamprey (*Petromyzon marinus*).[60] All three species are listed on Annex II and IV of the European Union Habitats Directive (92/43/EEC) which requires the Irish Government to designate SACs and to maintain the favourable conservation status of these species. A detailed survey of juvenile lamprey populations within the Boyne catchment was commissioned by the National Parks and Wildlife Service (NPWS) as part of the ongoing assessments of Annex II species in Ireland. As part of this extensive study, three sites on the Yellow River in Co. Offaly were investigated **(Figure 24)**.

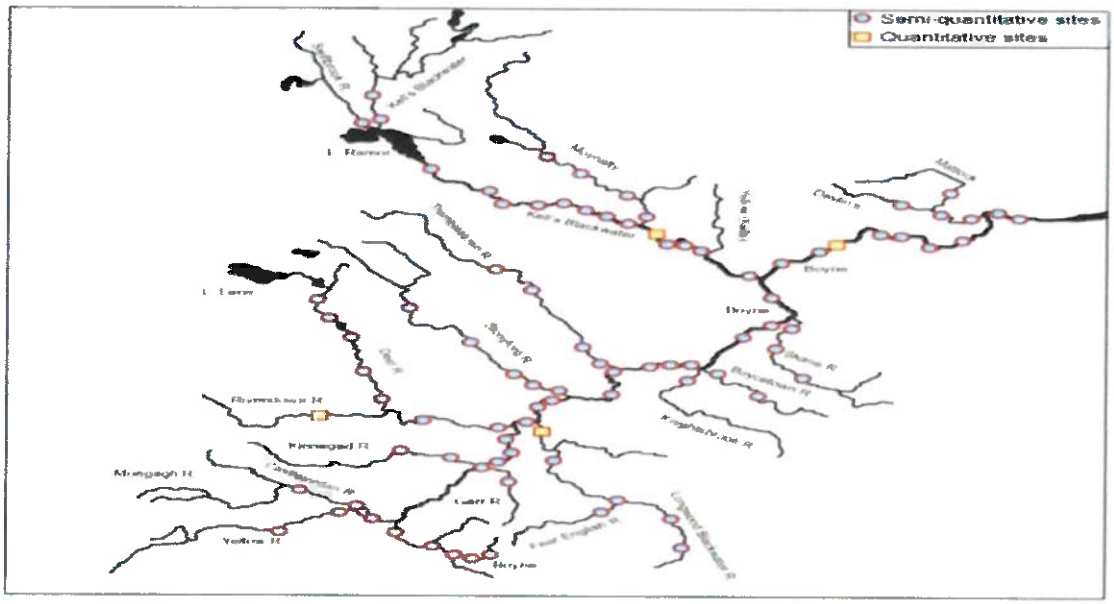


Figure 24: Lamprey study sites with the River Boyne catchment areas.

The Yellow River was noted to be a spring fed river with a good flow even during the study period when most rivers were low. Over a total of 32m^2 was investigated, resulting in the capture of 96 juvenile

lampreys. Even in areas of the yellow river which would not typically be recognized as good sites for lamprey due to deep water channels and poor visibility between the reeds, large number of lampreys were identified between the roots of a stand of *Sparganium erectum*, a perennial species of Bur-reed. This indicates that despite the apparent unfavourable habitat offered by the Yellow River upon visual inspection, lampreys are thriving in this river course. It was concluded that the Yellow River was the main area for lamprey production in the Yellow River sub-catchment which also included the Mongagh river and the Castlejordan River. Overall lamprey were present at an overall favourable conservation status level.[61] Additionally, the Yellow river was identified as an ideal spawning ground for river lamprey (*Lampetra fluviatilis*), which has been identified as a qualifying interest of the Boyne / Blackwater SAC. A more recent study on the status of lamprey populations within the Boyne catchment was conducted by Inland Fisheries in 2015 **(Table 7)**.[62] This data indicated that there were positive sites identified along the yellow river for Lampetra species, with a mean density of 9 lamprey/m^2. Within the entire Boyne catchment area that was surveyed, the Yellow River ranked 4th overall in terms of the numbers of lamprey present **(Table 7)**. This indicates that the Yellow River remains an important site for the conservation of this aquatic species.

Table 7: Comparison of distribution, density, population structure of Lampetra species.[62]

	No. sites	No. Suitable Habitat	No. Positive sites	Max. Density (Fish/m^2)	Min Density (Fish/m^2)	Mean Density (Fish/m^2)
Athboy / Tremblestown	6	2	4	4	3	3.25 (n=15)
Boycetown	2	0	0	-	-	-
Deel	12	1	9	7	2	3.7 (n=35)
Enfield Blackwater	7	0	5	26	9	13.6 (n=68)
Kells Blackwater	29	2	17	42	1	10.1 (n=182)
Kinnegad	3	0	3	18	11	14 (n=50)
Knightsbrook	3	0	2	14	1	7.5 (n=15)
Main Channel Boyne	23	2	18	15	1	7.1 (n=15)
Mattock	4	0	4	15	4	9.3 (n=37)
Stoneyford	8	0	7	5	1	2.7 (n=17)
Yellow	7	0	4	21	2	9 (n=36)

Lampreys are of high ecological value and can play an important role in processing nutrients, nutrient storage, and nutrient cycling in streams. Moreover, they also constitute a food source for other animals and can act as a buffer for salmon from predators in areas where they are abundant. There has been a considerable decline in lamprey populations across many European rivers due to rising water pollution, the erection of barriers across rivers, changes to rivers and stream channels and alterations in the discharge patterns of rivers and streams as a result of drainage systems. Drainage schemes reduce the retention of water on land and increase the occurrence of flash floods following heavy rainfall, resulting in the destabilisation, or washing away of silt banks which constitute the habitat of ammocoetes (the larval form of lamprey).[60] Ireland has not escaped this population decline, and conservation efforts have been implemented to help to maintain and improve lamprey populations. To conserve lamprey populations, the known spawning grounds and ammocoete haunts need to be protected and maintained and lamprey migration upstream to spawning sites needs to remain unhindered.[60] Lampreys are important indicators of habitat diversity and their presence and abundance in rivers, along with other indicator species, could be used to assess the "good ecological status" of rivers as required by the Water Framework Directive. There are relatively few data available concerning the water quality requirements of lampreys; however, they are generally regarded to be sensitive to pollution.[63] Given its favourable conservation status as regards lamprey populations and potential utility as a spawning ground, the Yellow river should be considered a sensitive receptor. Therefore, its lamprey population are at particular risk from pollution and wastewater discharge from drainage ditches on the site of this proposed Oxigen development.

White-clawed crayfish (*Austropotamobius pallipes*) is the only crayfish species native to Ireland. It is typically found in watercourses of 0.75 m to 1.25 m deep, but the species may occur in very shallow streams (about 5 cm of water) and in deeper, slow-flowing rivers (2.5 m). The white-clawed crayfish typically occupies cryptic habitats under rocks and submerged logs, among tree roots, algae and macrophytes, although it usually emerges to forage for food. Juveniles, in particular, may also be found among cobbles and detritus such as leaf litter. Adults may burrow into suitable substrates, particularly in the winter months. Across Europe, Crayfish populations are under threat primarily from a highly infectious lethal disease called Crayfish plague which is caused by a fungal-like organism, *Aphanomyces astaci*, and is associated with almost 100% mortality rates. This disease has been recognised as a very significant threat to the survival of the globally threatened White-Clawed Crayfish. The White-clawed Crayfish is considered a globally threatened species and Ireland holds one of the largest surviving populations. Protected under the Irish Wildlife Act (1975) and listed in Annex II of the Habitats

Directive, Irish stocks of White-clawed crayfish are thus today of European importance and are protected under international and national legislation.

Crayfish were previously widespread in the Boyne catchment; however, in 2002 Demers *et al* stated that: "no crayfish were found in most of the catchment. They were only present in the Kells Blackwater sub-catchment. This may be due to an earlier outbreak of the fungal plague caused by *Aphanomyces astaci*."[64] In this same study Demers also indicated that whereas crayfish were found in the Castlejordan/ Mongagh River in 1977-1986, none were found in 2000. These findings were troubling in terms of the Crayfish population throughout the entire Boyne catchment area and indeed for wider European crayfish conservation efforts. However, in a later study by Reynolds, it was reported that the crayfish population in the Mongagh / Yellow rivers catchment was being reestablished, with sightings reported throughout the Yellow River sub-catchment **(Figure 25)**. Even small populations of Crayfish should be preserved as part of the European and Ireland wide conservation efforts. Given the reestablishment of the Yellow Rivers fragile crayfish population, it is imperative that there is no opportunity allowed for destruction or pollution of this suitable habitat.

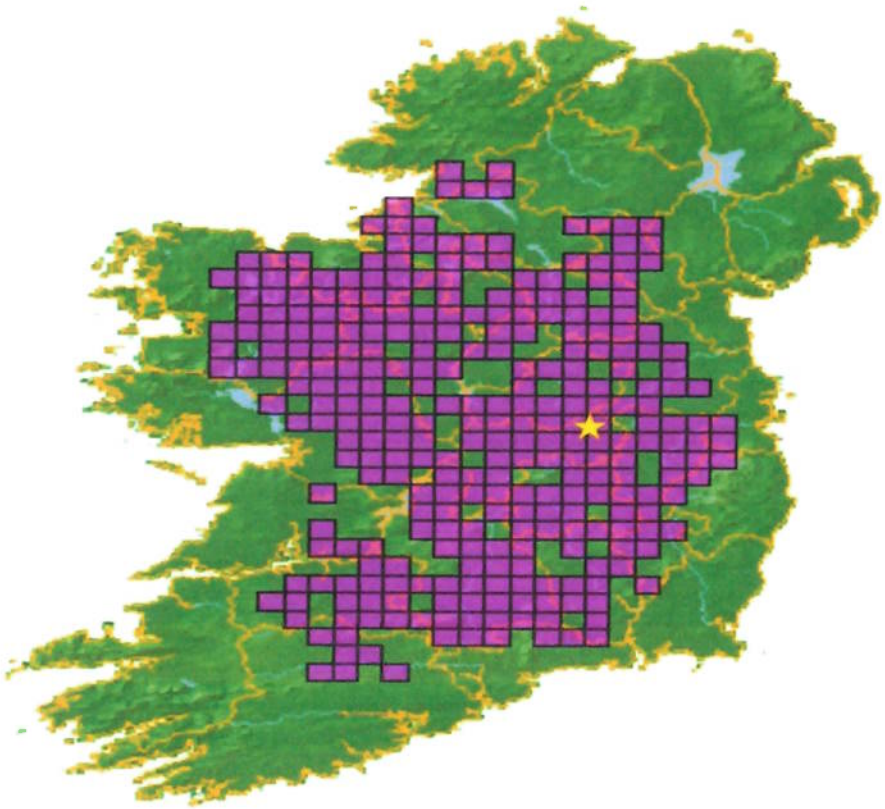


Figure 25: Crayfish Biodiversity map of Ireland.

The Yellow River is part of the Boye catchment area; therefore, it is a significant player in the Boyne fishery and is important in maintaining or attaining favourable conservation status of different fish species in the River Blackwater and River Boyne SAC. According to the wildlife survey conducted as part of the recent planning application for the YRWF development, which is also in this locality, one Annex II fish species, salmon (*Salmo salar*), which is a qualifying interest in the SAC, occurs in these watercourses. Annex II species require special areas of conservation. Inland Fisheries Ireland (IFI) have previously stated that *"The Yellow River has good stocks of Brown Trout. With regard to the Castlejordan or Mongagh River, ... as well as having stocks of Brown Trout, its Rochfortbridge tributary contain good stocks of Salmon"* .[53, 65] IFI remain anxious that stocks would be protected from negative effects from potential developments in the area. The Rochfortbridge Stream was also identified as a salmon spawning area in Mott McDonald Pettit (2009) which states: *"Following consultation with the Eastern Regional Fisheries Board (ERFB), it was confirmed that the Rochfortbridge Stream, which joins the Mongagh River ...,has salmonid spawning potential and adult salmon and salmon redds have been observed in the Rochfortbridge Stream."*[66] The Rochfortbridge Stream joins the Mongagh River which then joins the Yellow River, meaning salmon of all stages of the lifecycle could gain access to the Yellow River. Furthermore, surveys by IFI indicate that several sections of the Yellow River offer good salmon spawning and nursery habitats, with Fair-Good being recorded for all salmonid life stages. Salmon are known to run up the Castlejordan river to spawn in Rochfortbridge Stream; therefore, if we apply a precautionary principle, for the purposes of mitigation it should be assumed that salmon may also run up the Yellow River and juvenile salmon may also be present in the Yellow River where Fair – Good spawning habitat have been recorded. Based on the habitat and water quality recorded in this survey, it is concluded that the remaining main Yellow River sections are likely to have a fair population of adult trout and low densities of juvenile salmonids. Salmon would be most vulnerable to negative impacts from such a development in sections of river/stream habitat which provide high quality conditions for salmon spawning and juvenile life stages. These channels are therefore classified as of regional importance. It cannot be discounted that onsite activities such as drainage, uncontrolled run-off, accidental releases of wastewater could place this important species at significant risk.

6.3. Results of the Bat survey

Ireland has 9 native bat species and under European and Irish legislation it is an offense to intentionally disturb, injure or kill a bat or disturb its roost. According to Oxigen's EIAR (EIAR Non-Technical Summary page 18) *"no bat evidence or sightings were recorded during an on-site survey undertaken on 17th June 2021. There are no records of bat species within 2km of the proposed development"*. The community disputes the results of the bat survey included in this proposal which directly contradicts numerous

studies carried out in the area by other developments. No details have been provided to support that this survey was conducted correctly, and we believe this is a significant failing of this proposal in terms of assessing the sites potential impact on flora and fauna. In 2013 a baseline bat survey was conducted by the INIS Environmental Consultants within Bord na Mona's bogs including Derrygreenagh Bog and the Derryarkin site as part of the Energy Hub Project Bat Survey 2013.[67] The aim of this study was to establish indicative levels of bat activity. Surveyors used a combination of walked and driven transects, passive monitoring and roost surveys to examine bat activity across these bog regions. Survey of the Derryarkin site identified five different bat species (Soprano pipistrelle, Common pipistrelle, Daubenton and Myotis whiskered / Brandts, Brown long eared) and concluded that Derryarkin had high bat activity accounting for 4.9% of the total bat activity across the survey regions.[67] Therefore, it is questionable that Oxigen has stated that there is no bat activity at the site. Indeed, the proposal acknowledges that the habitat does provide foraging habitats for bats. We believe this survey requires validation by an external entity.

7. Impact on Cultural Heritage

The local community perceives several negative impacts arising as a direct result of this proposed development on both an archaeological and cultural level within the region.

7.1. Archaeological Impacts

According to the EIA (EIAR Non-Technical Summary page 32) Oxigen considers that the proposed development will not cause cumulative effects on archaeological, architectural, or cultural heritage resources. The community wishes to point out that there is significant evidence regarding prehistoric activities at the Derryarkin site and wider surroundings. The Irish Archaeological Wetland Unit (IAWU) of University College Dublin (UCD) conducted intensive surveys in 2001-2002 of peatland surrounding the Derryarkin and nearby Drumman bog.[68] Through this study, a total of 65 sites, seven artefacts and two possible artefacts were recorded in these specific bogs. A small sample of sites were dated to the early Neolithic and the middle to late Bronze Age while a Bann Flake dated to the late Mesolithic. [68] A cluster of these sites are located approximately 1km to the west (Bunsallagh townlands) and 1km to the north (Derrygreenagh townlands) of this proposed site. According to this report archaeological remains such as wooden trackways, wooden platforms, artefacts, and many other site types are preserved in peat due to the anaerobic and waterlogged nature of the peat layers. Trackways (referred to as toghers) or short stretches of trackways (tertiary and secondary toghers) were constructed to traverse the peatbogs or provide a foot holding along certain stretches of wet bog. Wooden platforms most likely functioned as hides or hunting platforms in order to exploit the natural flora and fauna of

the peatbogs.[69] A number of trackways, wooden platforms, occupation features, artefacts and miscellaneous wooden structures have been uncovered in the Derryarkin and Ballybeg bogs.[68] Several artefacts dating to the Neolithic period have been previously recovered from the Derryarkin townlands including two stone axe-heads (1969:863, 1959:751). Evidence for further Bronze Age activity to the south of the nearby Derrygreenagh Hill is implied by the presence of five recorded fulachta fiadh or burial mounds (OF004-017–21). Croghan Hill, located c. 3km south-west of the proposed wind farm, was a significant sacred place during the Bronze Age and Iron Age and is one of the most prominent landmarks in the area. The mountain was known as 'Cruachán Brí Éile' meaning mound/hill of Brí Éile which in turn gave a name to the surrounding bogland – 'Móin Éile' or Bog of Allen.[70] It commands extensive views of the surrounding landscape, overlooking the proposed development area. A Bronze Age burial mound (RMP OF010-004001) and a ring barrow (RMP OF010-010008) are located on the summit of the hill and several sites located within the vicinity may be associated with this. Iron Age bog body 'Old croghan Man' was found on the south side of the hill and it is suggested that his burial may be associated with a former royal estate.[71] Early medieval sites on Croghan hill include a church site and graveyard (OF010-004(02) which was reputedly founded by Bishop Mac Caille at Cruchan Brí Éile before his death around 490AD.[72] Lough Na Shade is a historic lake located between Rhode and Croghan which was drained as part of the development of the bogs in the 1950s and which is referenced in Samuel Lewis' 1837 Maps of Bogs in the Irish midlands. A dug-out coracle (boat) of oak was discovered at Lough-na-Shade, in January 1955, in a newly opened Bord na Mona drain. It is worthwhile to note that to date no archaeological excavations of the sites discovered through the IAWU 2002 survey have been undertaken in Derryarkin peatbogs. Since wetland environments are ideal for preservation of archaeological remains the peatland and reclaimed peatland has been designated as an Area of Archaeological Potential (AAP). There may be a significant or profound impact on previously unrecorded archaeological features or deposits that have the potential to survive beneath the current ground level in this specific AAP. This will be caused by ground disturbances associated with the construction and indeed operation of the proposed development.

7.2. Cultural Impacts

A proposal was recently submitted to Offaly County Council regarding the proposed Lough Na Shade Amenity Area and Croghan Greenway extension. This proposal received widespread support from the locality and if approved it would see the Grand Canal Greenway extended along the Bord na Mona rail line from Mount Lucas to Croghan Hill. This extension would complement the reinstatement of Lough Na Shade and the development of an Amenity Area at this site. Lough Na Shade is a historic lake located

between Rhode and Croghan which was drained as part of the development of the bogs in the 1950s and which is mentioned by Samuel Lewis on the 1837 Maps of Bogs in the Irish midlands (Figure 26).

Figure 26: Lough Na Shade as recorded in Alex Jones 1811 Maps of the Bogs of Ireland.

Derryarkin townland noted on top left.

Rewetting and rewilding of Lough Na Shade would be feasible if the Greenway is approved, a development which would align with the EU Nature Restoration Law which was widely supported by all of Ireland's MEPs. Bord Na Mona's Peatlands Climate Action Scheme (PCAS) is aligned with the Nature Restoration Law and is committed to reverse the damage evident in the midland's bogs inflicted through decades of peat extraction and this rewetting of Lough Na Shade would represent a significant positive step in terms of meeting this objective. The re-wetting of this historic lake at Lough-na-Shade would act as a significant buffer to protect the views from Croghan Hill and would align with Offaly County Councils recent actions in buying the land at the top of Croghan Hill in a bid to secure public access for this highly popular amenity. Accessibility to this amenity would be further developed by connecting it to the existing Greenway network and ultimately the East Offaly Wilderness Corridor. As part of the Just Transition process €169m has been allocated for communities transitioning away from peat. Over €30m of this fund has been allocated by Failte Ireland for Tracks and Trails and the extension of the Greenway network. If greenlighted this project could reinstate the old walkways from Derrygreenagh, through Derryarkin and over to Croghan Hill (Figure 27).

Figure 27: An image from the 1556 Cotton Map of Offaly.

The map denotes a lake on the bog between the townslands of Cooclor (Kilcor), Knockdrin (Drin) and Croghan Hill. The ancient trackway that joined the Mongagh and Yellow Rivers via Derryarkin is marked in Red.

From a local perspective this amenity project would greatly benefit the Greenway project and bring sustained tourism to the local area as well as further promote the settlement of our red and amber listed birds in the area with the availability of protected waterways. However, the viability of the Greenway extension and rewetting of the midlands boglands would be seriously impeded by the granting of permission to Oxigen's Waste Management facility. We are of the firm belief that Oxigen's planned development will lead to the abandonment of this much supported public amenity's development as it will effectively destroy the old walkway routes and will become a visible, noisy, intrusive blight on the landscape. We also believe that the greenlighting of Oxigen's proposed facility will be in direct contradiction to our commitment on an EU level to return our damaged peatlands to their original states through rewetting and rewilding and therefore maintain that this applicant's proposal must be denied.

8. Conclusion

To summarize, the community objections to the proposed development by Oxigen Environmental Ltd at Derryarkin, Co. Offaly are rooted in concerns about its potential cumulative environmental impact, lack of transparency, and the significant threats it poses to various aspects of the local environment. The planned material recycling and waste transfer facility, set to accept 90,000 tonnes of mixed waste, raises several critical issues that must be addressed.

- Firstly, the socio-economic impact is questionable, and the promised benefits to the local community appear overstated. The potential negative consequences, such as decreased property values and the impact of nuisance odours and run-off, cannot be ignored.
- Secondly, the strain on local infrastructure, especially roads, poses a severe problem. The R400 has already experienced significant deterioration due to heavy traffic, and the proposed development will exacerbate this issue, potentially endangering road safety.
- Thirdly, concerns about air quality and odours cannot be dismissed. Oxigen's track record in handling odorous waste and past incidents raise doubts about their ability to effectively mitigate odours at the Derryarkin site.
- Fourthly, the geological concerns related to the aquifer, particularly its vulnerability and potential for contamination, require thorough evaluation and safeguards.
- Fifthly, the impact on hydrology, water quality, and aquatic ecosystems raises alarms. The potential for increased run-off and pollutants from the facility could have detrimental effects on local watercourses and, subsequently, the River Boyne SAC and SPA.
- Lastly, the potential harm to local flora and fauna, including protected species like Whooper swans and salmon, is deeply troubling. The limited surveys conducted do not provide a comprehensive understanding of the area's biodiversity, and a more thorough assessment is warranted.

In light of these concerns and the significant gaps in the proposed development's environmental impact assessment, with one voice the community urges Offaly County Council to conduct an in-depth and independent review of the project's potential consequences on the local environment. This should include a comprehensive hydrogeological assessment, detailed flora and fauna surveys, and a thorough examination of socio-economic and traffic impacts. Transparency and community involvement are paramount in ensuring that developments like this are in the best interests of the local community and the environment. As such the local communities of Rhode, Croghan, Rochfortbridge and surrounding areas request that all relevant information and findings be made accessible to the public to facilitate informed decision-making. We hope that Offaly County Council will give due consideration to our objections and concerns and take the necessary steps to protect our community and the environment from the potential adverse impacts of the proposed development.

9. Names of objectors

#	Name	Address
1	Alcindor, Jennifer	Tudor Lodge, Clonmore, Rhode, Co. Offaly, R35 DK68
2	Hyland, Anthony	20 Hillview, Rhode, Co. Offaly, R35P768
3	Aspell, David	Baltigeer, Ballinabrackey, Co. Meath, N91 W446
4	Aspell, Kathleen	Dunville, Rhode, Co. Offaly, R35NY65
5	Aspell, Martin	Dunville, Rhode, Co. Offaly, R35 NY65
6	Bennett, Noel	Garr, Rhode, Co. Offaly, R35VX43
7	Bennett, Paula	Garr, Rhode, Co. Offaly, R35VX43
8	Blong, Teresa	Barrysbrooklodge, Croghan, Co. Offaly, R35RT22
9	Bolger, Wendy	Fahy Hill, Rhode, Co. Offaly, R35ET72
10	Brady, David.	Rathcobican, Rhode, Co. Offaly, R35F5Y4
11	Brennan, Alison	13 Woodville Manor, Rhode, Co. Offaly, R35VX06
12	Burns, Angela	Tubberdaly, Rhode, Co. Offaly, R35Y571
13	Byrne, Derek	76 Hillview, Rhode, Co. Offaly R35YV88
14	Byrne, Frank	18 Priory Lawns, Rhode, Co. Offaly, R35F797
15	Byrne, Jason	Edenderry Road, Rhode, Co. Offaly, R35HX81
16	Byrne, Linda	18 Priory Lawns, Rhode, Co. Offaly, R35F797
17	Byrne, Samantha	76 Hillview, Rhode, Co. Offaly, R35YV88
18	Caffery, Alina	Croghan Hill, Rhode, Co. Offaly, R35AF59
19	Cahill, Darren	Corbetstown, Castlejordan Tullamore, Co. Offaly, R35N8W5
20	Cahill, Louise	Derryiron, Rhode, Co. Offaly, R35F593
21	Campbell, Tara	63 Hillview, Rhode, Co. Offaly, R35K761
22	Cannon, Dorothy	5 Woodville Manor, Rhode, Co. Offaly, R36AP02
23	Cannon, Eamonn	5 Woodville Manor, Rhode, Co. Offaly, R36AP02
24	Cannon, Ewan	5 Woodville Manor, Rhode, Co. Offaly, R36AP02
25	Cannon, Michael	5 Woodville Manor, Rhode, Co. Offaly, R36AP02
26	Carroll, Deirdre	36 Priory Lawns, Rhode, Co. Offaly, R35VP64
27	Carroll, Elaine	Hillview House, Ballyfore, Croghan, Tullamore, Co. Offaly, R35E223
28	Carroll, PJ	36 Priory Lawns, Rhode, Co. Offaly, R35VP64
29	Carroll, Stephen	Hillview House, Ballyfore, Croghan, Tullamore, Co. Offaly, R35E223
30	Carter, Charlie	Killure, Rhode, Co. Offaly, R35RK09
31	Carter, Geraldine	Killure, Rhode, Co. Offaly, R35RK09
32	Cassidy, Bernie	Tubberdaly, Rhode, Co. Offaly, R35K544
33	Cassidy, Brian	24 The Green, Lakepoint, Co. Westmeath, N91DFT0
34	Cassidy, Hilary	219 The Island, Chapelizod, Dublin, Co. Dublin, D20WR16
35	Cassidy, Mark	16 The Green, The Hawthorns, Tullamore, Co. Offaly, R35YC25
36	Cassidy, Oliver	Tubberdaly, Rhode, Co. Offaly, R35K544
37	Cassidy, Paul	Fahy, Co. Offaly, R35N765
38	Cocoman, Billy	Newtown, Rhode, Co. Offaly, R35TD71
39	Cocoman, Noeleen.	Newtown, Rhode, Co. Offaly, R35TD71
40	Coffey, Tom	Tubberdaly, Rhode, Co. Offaly, R35AY11
41	Connolly, Imelda	Riverside, Garrbridge, Rhode, Co. Offaly, R35V201
42	Connolly, Michael	Riverside, Garrbridge, Rhode, Co. Offaly, R35V201
43	Connolly, Paula	17 Priory Lawns, Rhode, Co. Offaly, R35EV20

44	Connolly, Ronan	Riverside, Garrbridge, Rhode, Co. Offaly, R35V201
45	Connolly-OToole, Lorraine	Rathcobican, Rhode, Co. Offaly, R35N671
46	Coughlan, Tracey	Knockdrin, Rhode, Co. Offaly, R35 RK09
47	Coyne, Eoin	Rooske, Edenderry, Co. Offaly R45A324
48	Crawley, Frances	Brickfield Stud, Thomastown, Edenderry, Co. Offaly, R45HN99
49	Cummins, Declan	Laurencetown, Rhode, Co. Offaly, R35V259
50	Curley, Alan	Rathcobican, Rhode, Co. Offaly, R35W2H3
51	Curtis, Frank	40 Hillview, Rhode, Co. Offaly, R35FE02
52	Curtis, Michael	40 Hillview, Rhode, Co. Offaly, R35FE02
53	Curtis, Shauna	40 Hillview, Rhode, Co. Offaly, R35FE02
54	Daly, Claudine	Rhode Bridge, Rhode, Co. Offaly, R35RK64
55	Daly, Ronan	Rhode Bridge, Rhode, Co. Offaly, R35RK64
56	Darby, Stephen	Fahy, Rhode, Co. Offaly, R35VK30
57	Davies, Gareth	Derryiron, Rhode, Co. Offaly, R35K6Y5
58	Davy, Linda	Dunville, Rhode, Co. Offaly, R35R899
59	Dillon, Margaret	204 Brandon Road, Dublin 12, Co. Dublin, D12 FX29
60	Dillon, Mary	Coolcor, Rhode, Co. Offaly, R35ED74
61	Dillon, Seamus	Coolcor, Rhode, Co. Offaly, R35ED74
62	Dillon, Tracey	Rathcobican, Rhode, Co. Offaly, R35F5Y4
63	Dolan, Monica	45 Sycamores, Rochfortbridge, Co. Westmeath, N91E
64	Donegan, Joseph	Clonin, Rhode, Co. Offaly, R35K274
65	Donegan, Monica	Clonin, Rhode, Co. Offaly, R35K274
66	Donoghue, Imelda	Cooleville House, Rhode, Co. Offaly, R35TF62
67	Donoghue, Jackie	Rathcobican, Rhode, Co. Offaly
68	Donoghue, Tom	Rathcobican, Rhode, Co. Offaly
69	Doolan, Peter	Ballybrittan, Rhode, Co. Offaly, R32WP93
70	Dowdall, Hollie	Knockdrin, Rhode, Co. Offaly, R35R236
71	Dowling, Celia	Fahy, Rhode, Co. Offaly, R35FX29
72	Dowling, Celia	Fahy, Rhode, Co. Offaly, R35FX29
73	Dowling, Wattie	Fahy, Rhode, Co. Offaly, R35FX29
74	Doyle, Frances	Rhode Village, Rhode, Co. Offaly, R35A6K6
75	Duffy-Murphy, Joanne	12 The Stables, Athenry Road, Monivea, Co. Galway, H65PW73
76	Dunne, Gene	Cannakill, Croghan, Rhode, Co. Offaly, R35Y899
77	Dunne, Oliver	Cannakill, Croghan, Rhode, Co. Offaly, R35Y899
78	Dunne, Rose	Cannakill, Croghan, Rhode, Co. Offaly, R35Y899
79	Dunne, Samantha	Clonmore, Rhode, Co. Offaly, R45RF99
80	Earley, Sarah	Barrysbrook, Croghan, Co. Offaly, R35VF58
81	Edelman, Martina	53 Hillview, Rhode, Co. Offaly, R35Y439
82	Egan, Eithne	Ballyfore House, Croghan, Rhode, Co. Offaly, R35PY19
83	Egan, Enda	Ashfield House, Croghan, Rhode, Co. Offaly, R35VO82
84	Fagan, Olivia	24 The Green, Lakepoint, Mullingar, Co. Westmeath, N91DFT0
85	Farnell, John	Srah, Rhode, Co. Offaly, R35FP86
86	Fay, Joanne	Ballybeg, Croghan, Co. Offaly, R35YW01
87	Fay, Thomas	Ballybeg, Croghan, Co. Offaly, R35YW01
88	Fisher, Eileen	77 Hillview, Rhode, Co. Offaly, R35DY92
89	Fisher, Mick	77 Hillview, Rhode, Co. Offaly, R35DY92

90	Fitzgerald, Marie	14 Priory Lawn, Rhode, Co. Offaly, R35A563
91	Fitzgerald, Pat	14 Priory Lawn, Rhode, Co. Offaly, R35A563
92	Flanagan, Brendan	Croghan Hill, Rhode, R35 K661
93	Flanagan, Sinead	Croghan Hill, Rhode, R35 K661
94	Fleming, James	Coolcor, Rhode, Co. Offaly, R35K590
95	Fleming, Martina	Coolcor, Rhode, Co. Offaly, R35K590
96	Fleming, Mick	Laurencetown, Rhode, Co. Offaly, R35RK29
97	Flood, Cillian	Coolcor, Rhode, Co. Offaly, R35DN23
98	Flood, David	Coolcor, Rhode, Co. Offaly, R35DN23
99	Flood, David	Coolcor, Rhode, Co. Offaly, R35DN23
100	Flood, Janet	Coolcor, Rhode, Co. Offaly, R35DN23
101	Flood, Teresa	Coolcor, Rhode, Co. Offaly, R35DN23
102	Flood, Terri	Coolcor, Rhode, Co. Offaly, R35DN23
103	Flynn, Janelle	Newtown, Rhode, Co. Offaly, R35PK06
104	Foy, Alphonsus	Croghan, Rhode, Co. Offaly, R35YA37
105	Foy, Anthony	Barrysbrook, Croghan, Co. Offaly, R35VF58
106	Foy, Dearbhail	Clonmore, Rhode, Co. Offaly, R35XF62
107	Foy, Derek	Rathcobican, Rhode, Co. Offaly, R35P3V2
108	Foy, Enda	Clonmore, Rhode, Co. Offaly, R35XF62
109	Foy, Sheila	Croghan, Rhode, Co. Offaly, R35YA37
110	Foy, Shiela	Croghan, Rhode, Co. Offaly, R35YA37
111	Fusco, Francesco	Ballyheashill, Rhode, Co. Offaly, R35PP86
112	Fusco, Natalia	Ballyheashill, Rhode, Co. Offaly, R35PP86
113	Galvin, Elaine	Coolcur, Rhode, Co. Offaly, R35R522
114	Galvin, Paddy	Laurencetown estate, Laurencetown, Rhode, Co. Offaly, R35W086
115	Galvin, Patrick	Coolcur, Rhode, Co. Offaly, R35R522
116	Galvin, Patrick	Rhode, Co. Offaly, R35EE39
117	Garry, Amanda	Togher, Croghan, Tullamore, Co. Offaly, R35NW29
118	Garry, Christopher	Togher, Croghan, Tullamore, Co. Offaly, R35NW29
119	Gavin, Larry	Rhode, Tullamore, Co. Offaly, R35FW53
120	Gavin, Miriam	Rhode, Tullamore, Co. Offaly, R35FW53
121	Gillivan, Lar	Hawthorn House, Ballyfore, Croghan, Rhode, Co. Offaly, R35R8P2
122	Gillivan, Sheila	Hawthorn House, Ballyfore, Croghan, Rhode, Co. Offaly, R35R8P2
123	Ging, Deirdre	Ballybrittan, Rhode, Co. Offaly, R35VP64
124	Ging, Peter	Ballybrittan, Rhode, Co. Offaly, R35VP64
125	Glennon, Anne	Clonmore, Rhode, Co. Offaly, R35YY68
126	Glennon, Catriona	12 St Patricks Avenue, Rhode, R35D890
127	Glennon, Deirdre	Clonmore, Rhode, Co. Offaly, R35YY68
128	Glennon, Elaine	Fahy, Rhode, Co. Offaly, R35DA52
129	Glennon, Frances	Ballyheashill, Rhode, Co. Offaly, R35EK07
130	Glennon, Frank Bill	Fahy, Rhode, Co. Offaly, R35DF72
131	Glennon, Ray	Rosehouse, Coolcor, Rhode, Co. Offaly, R35HW58
132	Glennon, Richard	Clonmore, Rhode, Co. Offaly, R35YY68
133	Glynn, Adam	13 village crescent, Rhode, Co. Offaly, R35FX05
134	Glynn, Caroline	13 village crescent, Rhode, Co. Offaly, R35FX05
135	Glynn, Martin	13 village crescent, Rhode, Co. Offaly, R35FX05
136	Glynn, Niamh	13 village crescent, Rhode, Co. Offaly, R35FX05
137	Glynn, Stacey	Coolcor, Rhode, Co. Offaly, R35ED74

138	Gorman, Sharon	1 Priory Lawn, Rhode, Co. Offaly, R35R822
139	Govern, Edwina	Rathcobican, Rhode, Co. Offaly, R35 XW60
140	Gowran, Debbie	13 St Patricks Ave, Rhode, Co. Offaly, R35 CF76
141	Grainne Hyland.	20 Hillview, Rhode, Co. Offaly, R35P768
142	Grennan, Liam	Fahy, Rhode, Co. Offaly, R35XP99
143	Grennan, Olive	Fahy, Rhode, Co. Offaly, R35XP99
144	Grennan, Vinny	The Bungalow, Rhode, Co. Offaly, R35R822
145	Hanley, Josephine	Greenhill, Rhode, Co. Offaly, R35W577
146	Hannon, John	Togher, Rhode, Co. Offaly, R35X684
147	Hannon, Mary	Togher, Rhode, Co. Offaly, R35X684
148	Hannon, Michael	Bunsallagh, Croghan, Co. Offaly,
149	Harney, Esther	Ballybeg, Croghan, Co. Offaly, R35YW01
150	Harney, Hugh	Ballybeg, Croghan, Co. Offaly, R35YW01
151	Harney, James	Ballybeg, Croghan, Co. Offaly, R35YW01
152	Harney, John	Ballybeg, Croghan, Co. Offaly, R35YW01
153	Harney, Mary	Ballybeg, Croghan, Co. Offaly, R35YW01
154	Harney, Patrick Junior	Ballybeg, Croghan, Co. Offaly, R35YW01
155	Harney, Patrick	Ballybeg, Croghan, Co. Offaly, R35YW01
156	Harney, Peter	Ballybeg, Croghan, Co. Offaly, R35YW01
157	Harte, Aisling	19 Priory Lawns, Rhode, Co. Offaly, R35XD65
158	Hearns, Barry	33 Hillview, Rhode, Co. Offaly, R35X038
159	Heavey, Mairead	3 Marian Terrace, Rhode, Co. Offaly, R35HT28
160	Heavey, Ronan	3 Marian Terrace, Rhode, Co. Offaly, R35HT28
161	Hendrick, Joanne	40 Hillview, Rhode, Co. Offaly, R35FE02
162	Henry, Kim	Togher, Croghan, Rhode, Co. Offaly, R35C2H7
163	Hickey, Eoghan	18 Woodville Manor, Rhode, Co. Offaly, R35FY62
164	Hickey, Gerry	Toberdaly, Rhode, Co. Offaly, R35KX40
165	Hickey, Kathleen	Ballystrig, Rhode, Co. Offaly, R35DH30
166	Hickey, Susan	18 Woodville Manor, Rhode, Co. Offaly, R35FY62
167	Hoey, Rob	Tubberdaly, Rhode, Co. Offaly, R35XN44
168	Hoey, Tierna	Tubberdaly, Rhode, Co. Offaly, R35 XN44
169	Hope, Aoife	Clonmeen, Rhode, Co. Offaly, R35HE67
170	Hope, Kieran	Clonmeen, Rhode, Co. Offaly, R35HE67
171	Horan, Emma	54 Hillview, Rhode, Co. Offaly, R35R627
172	Horan, Stephen	54 Hillview, Rhode, Co. Offaly, R35R627
173	Hynes, Caroline	Coolville House, Coolville, Rhode, Co. Offaly, R35TF62
174	Hynes, Ger	Coolville House, Coolville, Rhode, Co. Offaly, R35TF62
175	Hynes, Kathy	Coolville House, Coolville, Rhode, Co. Offaly, R35TF62
176	Hynes, Mark	Cooleville House, Rhode, Co. Offaly, R35TF62
177	Hynes, Sinead	11 Woodville Manor, Rhode, Co. Offaly, R35K207
178	Jenkinson, James	Ballybryan, Rhode, Co. Offaly, R35CY51
179	Jenkinson, Rosemarie	Ballybryan, Rhode, Co. Offaly, R35CY51
180	Jones, Damien	Croghan Hill, Rhode, Co. Offaly, R35AF59
181	Jones, Helen	Tailors Cross, Togher, Rhode, Co. Offaly, R35CY94
182	Jones, Mary	Togher, Rhode, Co. Offaly, R35V090
183	Kavanagh, Denise	1 Marion Terrace, Rhode, Co. Offaly, R35XY07
184	Kavanagh, Keith	Coolcor, Rhode, Co. Offaly, R35K523
185	Kavanagh, Mark	Coolcor, Rhode, Co. Offaly, R35RD68

186	Kavanagh, Martha	Coolcor, Rhode, Co. Offaly, R35RD68
187	Kavanagh, Nuala	Laurencetown, Rhode, Co. Offaly, R35X970
188	Kavanagh, Paschal	Laurencetown, Rhode, Co. Offaly, R35X970
189	Keaney, Alan	204 Brandon Road, Dublin 12, Co. Dublin, D12 FX29
190	Kellaghan, Alan	Old Stanleys Lodge, Coolcor, Rhode, Co. Offaly, R35Y098
191	Kellaghan, Ken	Bawn Lodge, Rhode, Co. Offaly, R35YK75
192	Kellaghan, Patricia	Bawn Lodge, Rhode, Co. Offaly, R35YK75
193	Kellaghan, Robert	Clonin, Rhode, Co. Offaly, R35WV04
194	Kellaghan, Sean J	Trenwith House, Clonin, Rhode, Co. Offaly, R35VK19
195	Kelly, Mandy	Rhode Village, Rhode, Co. Offaly, R35DW95
196	Kelly, Michael	219 The Island, Chapelizod, Dublin, Co. Dublin, D20WR16
197	Kennedy, Louise	Knockdrin, Rhode, Co. Offaly, R35 X320
198	Kerrigan, Cliodhna	2 Marian Terrace, Rhode, Co. Offaly, R35A267
199	Kerrigan, Keith	2 Marian Terrace, Rhode, Co. Offaly, R35A267
200	Kierans, Adele	Droskyn Point, Ballybrittan, Edenderry, Co. Offaly, R45YY63
201	Kierans, Martin	Droskyn Point, Ballybrittan, Edenderry, Co. Offaly, R45YY63
202	Killeen, Helen	Rhode, Tullamore R35RC67
203	Kilmurray, Anthony	Fahy, Rhode, Co. Offaly, R35KN73
204	Kilmurray, Aoife	Fahy, Rhode, Co. Offaly, R35XN73
205	Kilmurray, Ben	Fahy, Rhode, Co. Offaly, R35KN73
206	Kilmurray, Ger	Fahy, Rhode, Co. Offaly, R35KN73
207	Kilmurray, Jack	Fahy, Rhode, Co. Offaly, R35XN73
208	Kilmurray, John	Togher, Rhode, Co. Offaly, R35RH93
209	Kilmurray, Orla	Togher, Rhode, Co. Offaly, R35RH93
210	Kucharski, Brstosz	Derryiron, Rhode, Co. Offaly, R35DX51
211	Lalor, David	Ballybryan House, Ballybryan, Rhode, Co. Offaly, R35NT78
212	Lalor, Gerard	Ballybryan House, Ballybryan, Rhode, Co. Offaly, R35NT78
213	Lalor, Helen	Ballybryan house, Ballybryan, Rhode, Co. Offaly, R35NT78
214	Lalor, Paula	Ballybryan House, Ballybryan, Rhode, Co. Offaly, R35NT78
215	Lawless, Deirdre	Rosewood Cottage, Fahy, Rhode, Co. Offaly, R35K300
216	Leavy, Cathal	Clonmeen, Rhode, Co. Offaly, R35AV82
217	Leavy, Catherine	Clonmeen, Rhode, Co. Offaly, R35AV82
218	Leavy, Christine	6 Marion Terrace, Rhode, Co. Offaly, R35D935
219	Leavy, Sharon	Clonmeen, Rhode, Co. Offaly, R35RF61
220	Lenehan, Peter	Rathcobican, Rhode, Co. Offaly
221	Leonard, Denis	Trim road, Kinnegad, Co. Westmeath, N91PD32
222	Loonam, Rick	204 Brandon Road, Dublin 12, Co. Dublin, D12 FX29
223	Lynam, Frank	Teach cnocdrin, Knockdrin, Rhode, Co. Offaly, R35KD51
224	Lynam, Roni	Teach cnocdrin, Knockdrin, Rhode, Co. Offaly, R35KD51
225	Lynch, Cathal	18 Clonin estate, Clonin, Rhode, Co. Offaly, R35C448
226	Lynch, Cathal	Rathcobican, Rhode, Co. Offaly, R35VX60
227	Malone, Ciaran	Ballybryan, Rhode, Co. Offaly
228	Malone, Collette	Derryiron, Rhode, Co. Offaly, R35YV62
229	Malone, David	Togher, Rhode, Co. Offaly, Rhode, Co
230	Malone, Evelyn	Croghan, Rhode, Co. Offaly,
231	Malone, Fergus	Coolcor, Rhode, Co. Offaly,
232	Malone, Jean	Cois na Mona, Togher, Rhode, Co. Offaly, R35NH31
233	Malone, Leonard	Derryiron, Rhode, Co. Offaly, R35YV62

234	Malone, Niamh	Ballystrig, Rhode, Co. Offaly, R35H678
235	Malone, Rachael	Ballybryan, Rhode, Co. Offaly,
236	Malone, Sean	Croghan, Co. Offaly,
237	Martin, Mary	Ballybryan, Rhode, Co. Offaly, R35KT38
238	Masterson, Colm	Ballybryan, Rhode, Co. Offaly, R35NC80
239	Masterson, Deirdre	Ballybryan, Rhode, Co. Offaly, R35NC80
240	Masterson, Joe	Killure, Rhode, Co. Offaly, R35XD92
241	Mayon, Frances	Ballybrittan, Edenderry, Co. Offaly,
242	Mayon, Robbie	Ballybrittan, Edenderry, Co. Offaly,
243	McCabe, Edward	Knockdrin, Rhode, Co. Offaly, R35R236
244	McCabe, Natalie	37 Hillview, Rhode, Co. Offaly, R35 KX52
245	McCabe, Niall	Knockdrin, Rhode, Co. Offaly, R35R236
246	McCabe, Tony	Knockdrin, Rhode, Co. Offaly, R35R236
247	McCarthy, Joseph	53 Hillview, Rhode, Co. Offaly, R35Y921
248	McCartney, Mary	Coolcur, Rhode, Co. Offaly, R35PV20
249	McDermott, Avril	Rathcobican, Rhode, Co. Offaly R35C995
250	McDermott, Eugene	Rathcobican, Rhode, Co. Offaly R35C995
251	McDermott, Josie	15 Priory Lawns, Rhode, Co. Offaly
252	McDermott, Robert	Killane, Edenderry, Co. Offaly, R45YP92
253	McGovern, Geraldine	Rathcobican, Rhode, Co. Offaly, R35NN80
254	McKenna, John	Coolcor, Rhode, Co. Offaly, R35VE80
255	McKenna, Lill	Coolcur, Rhode, Co. Offaly, R35VE80
256	McManus, Pat	Tubberdaly, Rhode, Co. Offaly, R35KP23
257	McManus, Trish	Tubberdaly, Rhode, Co. Offaly, R35KP23
258	McNamee, Alan	Fahy, Rhode, Co. Offaly,
259	McNamee, Anne Marie	34 Priory Lawn, Rhode, Co. Offaly, R35F228
260	McNamee, Audrey	Ballybrittan, Rhode, Co. Offaly, R45RF99
261	McNamee, John	Rathcobican, Rhode, Co. Offaly
262	McNamee, Niall	Fahy, Rhode, Co. Offaly,
263	Meade, Audrey	Coolcor cottage, Coolcor, Rhode, Co. Offaly, R35DP84
264	Meade, Garry	Coolcor cottage, Coolcor, Rhode, Co. Offaly, R35DP84
265	Meleady, Diarmaid	Clongall, Castlejordan, Co. Offaly, R45WY04
266	Meleady, Louise	Clongall, Castlejordan, Co. Offaly, R45WY04
267	Mitchell, Catherine	45 Hillview, Rhode, Co. Offaly, R35KR67
268	Mulligan, Aisling	Knockdrin lane, Rhode, Co. Offaly, R35EY20
269	Molloy, William	Barrysbrook, Rhode R35P651
270	Moore, Caroline	Croghan, Rhode, Co. Offaly,
271	Moore, Dolores	Ballyburley, Rhode, Co. Offaly, R35NW01
272	Moore, Matt	Croghan, Rhode, Co. Offaly,
273	Moore, Noel	Tyrellspass, Co. Westmeath,
274	Morris, Maria	Ballybryan, Rhode, Co. Offaly, R35R599
275	Morris, Michael	Ballybryan, Rhode, Co. Offaly, R35R599
276	Muldoon, Michael	St. Olivers, Rhode Village, Rhode, Co. Offaly,
277	Muldoon, Rosemary	St. Olivers, Rhode Village, Rhode, Co. Offaly,
278	Mulligan, Aine	Rhode, Co. Offaly, R35 KV00
279	Mulligan, Ann	Knockdrin, Rhode, Co. Offaly, R35Y820
280	Mulligan, Brendan	Knockdrin lane, Rhode, Co. Offaly, R35EY20

281	Mulligan, Ciara	Colour, Rhode, Co. Offaly, R35RH31
282	Mulligan, Ger	Coolcor, Rhode, Co. Offaly, R35RH31
283	Mulligan, Larry	Knockdrin, Rhode, Co. Offaly, R35Y820
284	Mulvin, Declan	Knockdrin, Rhode, Co. Offaly, R35 KC85
285	Mulvin, Glenda	Knockdrin, Rhode, Co. Offaly, R35V2KO
286	Mulvin, John	Knockdrin, Rhode, Co. Offaly, R35V2KO
287	Murphy, Annemarie	Tubberdaly, Rhode, Co. Offaly, R35NV91
288	Murphy, Barry	12 The Stables, Athenry Road, Monivea, Co. Galway, H65PW73
289	Murphy, Dolores	Tubberdaly, Rhode, Co. Offaly, R35NV91
290	Murphy, Emily	10 Priory Lawns, Rhode, Co. Offaly, R35A409
291	Murphy, Enda	10 Priory Lawn, Rhode, Co. Offaly, R35A409
292	Murphy, Geraldine	Fahy, Rhode, Co. Offaly
293	Murphy, Glenda	Rathcobican, Rhode, Co. Offaly, R35N924
294	Murphy, John	Rathcobican, Rhode, Co. Offaly, R35N924
295	Murphy, Sinead	Rathcobican, Rhode, Co. Offaly, R35DH21
296	Murphy, Tom	Rathcobican, Rhode, Co. Offaly, R35DH21
297	Murray, Claire	Villa Shalom, Clonmore, Edenderry, Co. Offaly, R45XR58
298	Murray, Claire	79 Hillview, Rhode, Co. Offaly, R35EY81
299	Murray, Gavin	The Harrow, Clonmore, Edenderry, Co. Offaly, R45T221
300	Murray, Hugh	The Harrow, Clonmore, Edenderry, Co. Offaly, R45T221
301	Murray, Jackie	The Harrow, Clonmore, Edenderry, Co. Offaly, R45T221
302	Murray, Peter	79 Hillview, Rhode, Co. Offaly, R35EY81
303	Murrin, John	6 Woodville Manor, Rhode, Co. Offaly, R35RR27
304	Nugent, Carol	Tubberdaly, Rhode, Co. Offaly, R35RY24
305	Nugent, Gérard	Tubberdaly, Rhode, Co. Offaly, R35RY24
306	ODonnell, Michelle	Glasshammer Studios, Rhode, Co. Offaly, R35FK50
307	OToole, Niall	Rathcobican, Rhode, Co. Offaly, R35N671
308	Owens, Tina	Rhode, Co. Offaly, R35EE39
309	Perdisatt, David	Clonmore, Rhode, Co. Offaly, R35Y560
310	Perdisatt, Fiona	Clonmore, Rhode, Co. Offaly, R35Y560
311	Quinlan, Deirdre	Ballybrittan, Rhode, Co. Offaly, R35DD73
312	Quinn, Alice	Rhode, Co. Offaly, R35 WT32
313	Quinn, David,	Rhode, Co. Offaly, R35 WT32
314	Quinn, Paddy,	Fahy, Rhode, Co. Offaly, R35EC95
315	Quinn, Siobhan	Fahy, Rhode, Co. Offaly, R35EC95
316	Quirke, Annemarie	27 Priory Lawn, Rhode, Co. Offaly, R35KX20
317	Reid, Josephine	Knockdrin, Rhode, Co. Offaly, R35KD51
318	Reid, Matt	Knockdrin, Rhode, Co. Offaly, R35KD51
319	Rigney, Martin	Croghan, Rhode, Co. Offaly, R35TW50
320	Rigney, Noelle	Croghan, Rhode, Co. Offaly, R35TW50
321	Russell, Eveleen	Clonmeen, Rhode, Co. Offaly, R35CX78
322	Russell, James	Edenderry Road, Rhode, Co. Offaly, R35PW58
323	Russell, Lisa	Clonmeen, Rhode, Co. Offaly, R35R726
324	Russell, Martina	Clonmeen, Rhode, Co. Offaly, R35XE29
325	Russell, Owen	Clonmeen, Rhode, Co. Offaly, R35R726
326	Russell, Sinead	Edenderry Road, Rhode, Co. Offaly, R35PW58
327	Ryan, Aisling	Clonmore, Rhode, Co. Offaly, Rhode, Co
328	Scally, Roger	Coolcor, Rhode, Co. Offaly, R35KD76

329	Scally, Siobhan	Coolcor, Rhode, Co. Offaly, R35KD76
330	Sheehan, Colleen	Croghan, Rhode, Co. Offaly
331	Sheehan, Donal	Croghan, Rhode, Co. Offaly.
332	Shire, Jean	Knockdrin, Rhode, Co. Offaly, R35FE48
333	Smale, Alex	Villa Shalom, Clonmore, Edenderry, Co. Offaly, R45XR58
334	Smith, Karen	Coolcor, Rhode, Co. Offaly, R35P821
335	Smith, Linda	Tubberdaly, Rhode, Co. Offaly, R35Y192
336	Smith, Paul	Coolcor, Rhode, Co. Offaly, R35P821
337	Smith, Cathal	Tubberdaly, Rhode, Co. Offaly, R35Y192
338	Smullen, Brian	Ballybrittan, Rhode, Co. Offaly, R35P523
339	Smullen, Mary	Clonin, Rhode, Co. Offaly, R35VW26
340	Smyth, Aoife	Coolcor, Rhode, Co. Offaly, R35K523
341	Spollen, Annette	Coolcor, Rhode, Co. Offaly, R35NP97
342	Spollen, Margaret	14 Clonin estate, Clonin, Rhode, Co. Offaly, R35RD27
343	Spollen, Thomas	14 Clonin estate, Clonin, Rhode, Co. Offaly, R35RD27
344	Stack, Michelle	Ballymacwilliam, Rhode, Co. Offaly, R34E296
345	Stephenson, Paul	Rhode, Co. Offaly, R35V261
346	Stynes, Pia	Fahy Hill, Rhode, Co. Offaly, R35V026
347	Swaine, Pat	Fahy, Rhode, Co. Offaly, R35AF85
348	Sweeney, Kevin	Fahy, Rhode, Co. Offaly, R35HW56
349	Taylor, Barbara	35 Priory lawns, Rhode, Co. Offaly, R35V670
350	Taylor, Christian	35 Priory lawns, Rhode, Co. Offaly, R35V670
351	Taylor, Martin	35 Priory lawns, Rhode, Co. Offaly, R35V670
352	Veitch, Derek	Rathcobican, Rhode, Co. Offaly, R35A4W0
353	Veitch, Gay	Rathcobican, Rhode, Co. Offaly, R35A4W0
354	Walsh, Barbara	Knockdrin, Rhode, Tullamore, Co. Offaly, R35A2W8
355	Walsh, John	Knockdrin, Rhode, Co. Offaly, R35A2W8
356	Whelan, Declan	3 Saint Patrick's Avenue, Rhode, Co. Offaly, R35EE73
357	Whelan, Ger	Mountwilson, Edenderry, Co. Offaly, R45AH02
358	Whelan, Jenny	Rosehouse, Coolcor, Co. Offaly, R35HW58
359	Whelan, Michelle	Mountwilson, Edenderry, Co. Offaly, R45AH02
360	Whelehan, Cathryn	1 Brockfield, Rochfortbridge, Co. Westmeath N91H5V2
361	Whelehan, Peter	Barrysbrook lodge, Croghan, Co. Offaly, R35RT22
362	Woods, Anne-Marie	Fahy, Co. Offaly, R35N765
363	Wyer, Katriona	Fahy, Rhode, Co. Offaly, R35HW56

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ACKNOWLEDGEMENT of RECEIPT of SUBMISSION or OBSERVATION on a PLANNING APPLICATION

THIS IS AN IMPORTANT DOCUMENT!

KEEP THIS DOCUMENT SAFELY. YOU WILL BE REQUIRED TO PRODUCE THIS ACKNOWLEDGEMENT TO AN BORD PLEANÁLA IF YOU WISH TO APPEAL THE DECISION OF THE PLANNING AUTHORITY. IT IS THE ONLY FORM OF EVIDENCE WHICH WILL BE ACCEPTED BY AN BORD PLEANÁLA THAT A SUBMISSION OR OBSERVATION HAS BEEN MADE TO THE PLANNING AUTHORITY ON THE PLANNING APPLICATION

The Residents of Rhode and Croghan Community
C/O Claire Murray Smale
Villa Shalom, Clonmore,
Edenderry, Co. Offaly

17/10/2023

Planning Reference No. 22/490

Re: THE DEVELOPMENT WILL CONSIST OF THE DEMOLITION OF EXISTING AGRICULTURAL SHEDS AND STRUCTURES ON-SITE AND THE CONSTRUCTION AND OPERATION OF A MATERIALS RECOVERY FACILITY FOR THE ACCEPTANCE AND PROCESSING OF UP TO 90,000 TONNES PER ANNUM OF HOUSEHOLD, COMMERCIAL AND INDUSTRIAL (C&I), AND CONSTRUCTION AND DEMOLITION (C&D) WASTE. ELEMENTS OF THE PROPOSED DEVELOPMENT INCLUDE THE FOLLOWING. (1) THE DEMOLITION OF ALL EXISTING SITE AGRICULTURAL SHEDS AND STRUCTURES ON-SITE (WHICH COVER AN AREA OF 1,417 M2). (2) THE CONSTRUCTION AND OPERATION OF A MATERIALS RECOVERY FACILITY, COMPRISING: (A) A SITE ENTRANCE, (B) A WEIGHBRIDGE, (C)TRUCKING SET DOWN AND PARKING AREAS, (D) STAFF PARKING, COMPRISING 24 PARKING SPACES INCLUDING DISABLED PARKING AND EV CHARGING, (E) A CONCRETE YARD AREA, (F) A FUEL STORAGE AREA, (G) EXTERNAL WASTE STORAGE BAYS, (H) SKIP / BIN STORAGE AREAS, (I) A PERIMETER BOUNDARY WALL (4 M IN HEIGHT) AND PERIMETER FENCING (2.1 M IN HEIGHT), (J) A STORMWATER DRAINAGE AND ATTENUATION SYSTEM, (K) AN ADMINISTRATION TWO-STOREY BUILDING (WITH AN OVERALL FLOOR AREA OF C. 396M2 AND C.7.35M IN HEIGHT), (L) A SINGLE STOREY MATERIALS RECOVERY FACILITY (WITH AN OVERALL FLOOR AREA OF C. 2,850M2 TO A MAXIMUM HEIGHT OF C.13M), (M) A TRUCK LOADING BAY, (N) AN ON-SITE WASTEWATER TREATMENT SYSTEM, ASSOCIATED PERCOLATION AREA AND ANCILLARY SERVICES, (O) AN ON-SITE ESB SUB-STATION AND ADJOINING ELECTRICAL ROOM (WITH A COMBINED FLOOR AREA OF 61 M2 AND 2.175 M IN HEIGHT), (P) SOLAR PANELS (COVERING A TOTAL AREA OF 737 M2) MOUNTED ATOP THE PROPOSED ADMINISTRATION AND MATERIALS RECOVERY

FACILITY BUILDINGS. THE APPLICATION IS ACCOMPANIED BY AN ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR) AND NATURA IMPACT STATEMENT (NIS). THE PROPOSED DEVELOPMENT WILL ACCEPT UP TO 50,000 TONNES OF WASTE PER ANNUM AND OPERATE UNDER A WASTE FACILITY PERMIT FROM OFFALY COUNTY COUNCIL DURING PHASE 1 OF OPERATIONS. THE PROPOSED DEVELOPMENT WILL ACCEPT UP TO 90,000 TONNES OF WASTE PER ANNUM AND OPERATE UNDER AN INDUSTRIAL EMISSIONS LICENCE FROM THE ENVIRONMENTAL PROTECTION AGENCY DURING PHASE 2 OF OPERATIONS at DERRYARKIN RHODE.

A submission/observation in writing has been received from
The Residents of Rhode and Croghan Community, C/O Claire Murray Smale, Villa Shalom, Clonmore, Edenderry, Co. Offaly on 13/10/2023 in relation to the above planning application.

The appropriate fee of €20 has been paid.

The submission/observation is in accordance with the appropriate provisions of the Planning and Development Regulations, 2001, as amended and will be taken into account by the planning authority in its determination of the planning application.

Administrative Officer

Planning Authority Stamp

COMHAIRLE CHONTAE UÍBH FHAILÍ
17 OCT 2023
PLANNING