



An
Bord
Pleanála

Inspector's Report ABP 304337-19

Development	Construction of 23 Detached houses, demolition of shed, communal waste water treatment and utility building, landscaping, boundary potable water well and site works.
Location	Ardrahan South. County Galway.
Planning Authority	Galway County Council.
P. A. Reg. Reg. Ref.	19/157
Applicant	Martin Murphy.
Type of Application	Permission
Decision	Refuse Permission.
Type of Appeal	First Party X Refusal
Appellant	Martin Murphy.
Date of Site Inspection	25 th June, 2019
Inspector	Jane Dennehy

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1.0 Site Location and Description

- 1.1. The site has a stated area of 4.705 hectares is greenfield and formed from agricultural lands circa 120 metres to the south west of the village core of Ardrahan. The land is relatively flat with a slight fall towards the south east and is below the level of the R458, (formerly N18) onto the west side of which it has frontage. Along the eastern boundaries of the site adjoining the west side of the road frontage there is some retaining walling of concrete construction and stone walls, and hedgerows are located within the site and a derelict building is located towards the southern end. On the outer side there is a wide grass verge, a sign for “Ardrahan” and maximum speed signs.
- 1.2. There is cluster of single storey dwellings along a *cul de sac* on the opposite side of the R458
- 1.3. The site location is over a regionally important karst aquifer with high to extreme groundwater vulnerability aquifer which is a turlough ground water body which has a poorly productive bedrock.

2.0 Proposed Development

- 2.1. The application lodged with the planning authority indicates proposals for demolition of an existing agricultural structure on the site and for construction of twenty-three detached houses, in a range of three house-types which would represent the first (phase 1) of a two-phase development, thirteen dwellings being planned for the second phase (Phase 2) which is to be subject to a separate application. The two phases provide for an overall residential development of thirty-six detached houses. The lodged site layout plan shows the thirteen-unit Phase 2 element in a single cluster at the rear, west side of the Phase 1 element which is laid out in three small clusters north to south along the eastern section of the site.
- 2.2. A communal wastewater treatment and disposal system providing for primary, secondary, (sequential batch reactor secondary treatment plant) tertiary treatment in a stratified sand polishing filter incorporating UV treatment followed by pumping to a gravel disposal pad at the south west end of the site lands is proposed. Tertiary

treatment is to include UV treatment. Proposals to enter into a twenty-year maintenance contract is indicated.

- 2.3. Surface water drainage is to be collected and directed to an infiltration pit designed for a 100-year storm return period. A petrol interceptor is to be provided for treatment of all stormwater runoff prior to discharge to the pit and individual soak pits in the rear gardens are to be provided for each dwelling.
- 2.4. The proposed means of water supply is via an on site bore well which according to testing conducted has a 55 cubic metres per day capacity which is enough to serve ninety dwellings. The design and layout are stated to accord with the Irish Water Code of Practice.
- 2.5. A shared estate entrance direct onto the R 458 located towards the centre of the site frontage is indicated on the plans and it is indicated that it has scope in the internal roads' layout for linkage into the lands to the south. Incidental open space is shown at the north east, north west edges along with a larger area at the southern end, surrounding the proposed effluent treatment plant, polishing filter, UV sterilisation system, utility building and disposal pads.
- 2.6. The application is accompanied by a Natura Impact Statement which has been prepared in respect of the combined, thirty-six unit, two phase development, by hydrogeological reports for the on-site borehole and for the proposed discharge license, an archaeological impact assessment report, photo montages and application drawings in hardcopy and in electronic form on a memory disk. (The memory disk is not available on the appeal file)

3.0 Planning Authority Decision

3.1. Decision

By order dated, 2nd April, 2019, the planning authority decided to refuse permission based on the reason reproduced below:

“Having regard to the proposed communal on-site wastewater treatment system (developer provide) and in the absence of satisfactory documentary evidence to confirm the adequate installation and operation of the system and in the absence of any guarantee of the long-term management and adequate

maintenance of same, the Planning Authority is not satisfied that the development would not be prejudicial to public health. The proposed development would therefore be contrary to the proper planning and sustainable development of the area.”

3.2. Planning Authority Reports

Planning Reports

- 3.2.1. The District Planning Officer’s report of 26th March, 2019 indicates a recommendation for refusal of permission on grounds relating to deficiencies in the details of the proposed provision of communal on-site waste water treatment system.
- 3.2.2. The Addendum Report of 23rd March prepared by a second Planning Officer in which reference is made to the NPF and Irish Water’s Water Services Strategic Plan and the report of the Environment Section indicate that the proposed development involves a highly unsustainable approach to servicing land and would lead to further proliferation of private treatment systems in villages that are not serviced. Note is also made that the indicative Phase 2 to the development which would result in a cumulative total of thirty-six residential units on the application site and adjacent lands. In addition, concern is expressed in the report about the potential or the development to be integrated into the village core and connectivity into the street network, grain and development pattern, an overall masterplan being considered desirable for the site planning.
- 3.2.3. Refusal is recommended on grounds of:
- failure to contribute to the urban form and sense of place in the village having regard to section 3.4.4 of the CDP and Sections 6.3 and 6.8 of *Sustainable Residential Development in Urban Areas. (Cities, Towns and Villages, (DOEHLG.) 2009*
 - premature development and public health concerns due to the lack of public infrastructure facilities and the period in which the constraint might be expected to cease and for reasons relating to design, layout and capacity the integration into the existing village settlement.

Other Technical Reports

- 3.2.4. **Environment Section:** The report of the Assistant Scientist dated 28th March, 2019 is detailed and it indicates that favourable consideration of the proposed development is not recommended due to the reliance on provision of private infrastructure facilities, (waste water treatment and disposal and water supply) to service it although the need to facilitate housing development is acknowledged. Reference is made to national and local policy which does not to permit private infrastructure facilities for multiple unit residential development and to ongoing difficulties where such systems are in place within the county. Concerns specific to the subject proposals for a bore hole and for the on- site waste water treatment is also noted, particularly with regard to the reliance on the feasibility of ongoing monitoring and maintenance.
- 3.2.5. **The Roads Department** contains a recommendation in a report dated, 19th Mach, 2019 that additional information be requested from the applicant to facilitate consideration of the proposed development by the Department in respect of some technical details on road markings, signage, layouts drainage, lighting, landscaping. It is recommended that a Stage 1/2 road safety audit (RSA) in accordance with section 5.4 of DMURS be prepared and submitted and that it should address pedestrian connectivity including access to the R458, phasing and footpath extensions according to the recommendations in the report.

3.3. Prescribed Bodies

- 3.3.1. The report of the Department of Culture, Heritage and the Gaeltacht, (Archaeology) was received by the planning authority on 13th March, 2019. It is noted that the location is in the constraint area of Recorded Monument GA114-001 (Historic Town) and stated that the Department concurs with the assessment and recommendations in the submitted archaeological assessment report. Thus, there is a requirement for appointment of a licensed archaeologist to undertake further archaeological investigation, further archaeological assessment to be undertaken by way of geophysical survey, further assessment on field boundaries in that there is a potential are of archaeological significance the possibilities for which need comprehensive assessment for archaeological significance.

3.4. Third Party Observations

- 3.4.1. An objection was received from the Ardrahan Group Water Scheme on 1st March, 2019 in which concerns is expressed about potential risk of contamination of the water supply due to the proximity to boreholes downgradient of the plant and disposal system and the proposed soak pit system and proposed discharge of effluent and storm water run-off to the ground. Two ground water abstraction wells would be exposed to high contamination risk according to the submission.
- 3.4.2. It stated that there are inconsistencies in the site characterisation report, such as the statement that its system is downgradient of the Ardrahan boreholes, inconsistencies with regard to the trial holes excavated, the water table, residents' numbers and the system design. Overall it is stated that there is insufficient detail in the technical specifications and drawings and that there is also inconsistencies and lack of detail for the storm drainage arrangements.
- 3.4.3. A supplementary submission was lodged with the planning authority on behalf of the applicant dated, 1st April, 2019 in response to this observer submission by the Ardrahan Group Water Scheme. It indicates that the justification made in the application and the claim therein as to adequacy of the proposed waste water treatment and disposal arrangements stand and the case made in the application is reiterated. Some of the observations in the objector's submission, particularly in relation to the status of the underlying groundwater are rejected. It is stated that there is precedent in Section 4 discharges in karst spring catchments of a public water supply which can be verified by an official at Roscommon County Council and that the trial well (for the water supply) could be a pathway for contamination to the entry to the bedrock aquifer if not decommissioned if permission is refused.

4.0 Planning History

P. A. Reg. Ref. 04/3577: According to the planning officer's report permission was refused for a fifty-bed hotel, and leisure centre, seven retail units, a supermarket, eight commercial units, a fifty-bed nursing home, sixteen sheltered housing units, forty-six dwellings, on-site parking, and a village square and village green.

5.0 Policy Context

5.1. Development Plan

- 5.1.1. The operative development plan is the Galway County Development Plan, 2015-2021.
- 5.1.2. The site location which is adjacent to Ardrahan is the area of the Galway Transportation Planning Study Area. (GTPS) and an area identified as a Rural Area under, “strong urban pressure.”
- 5.1.3. According to the Settlement Hierarchy within the Settlement Strategy, Ardrahan is a Tier 5 Settlement. (Other Villages with a population of less than 1,500 persons.) Some of these villages according to section 12.6.6 have potential for support additional growth as an alternative to residing in larger towns and, to meet the needs of those who do not meet the housing need requirements for development in the rural areas. According to Section 12.6.6 there is a requirement for investment in waste water treatment facilities and the inclusion of these villages among the Tier 5 settlements, “..... will provide a plan-led approach to securing this investment in the future”. According to section 2.7, growth should be at a scale appropriate to the village context, but a population growth metric is not provided for Tier 5 Settlements within the core strategy.
- 5.1.4. It is the policy of the planning authority under Objective RH12 to permit residential developments in areas that are not serviced only where it is demonstrated that the proposed wastewater treatment system accords with the “*EPA Wastewater Treatment Manuals; Treatment Systems for Small Communities, Business, Leisure Centres and Hotels.*” (1999) or superseding documents, subject to compliance with the objectives of the EU Water Framework Directive.

5.2. **Sustainable Residential Development in Urban Areas. (Cities, Towns and Villages, (DOEHLG.) 2009. Urban Design Manual – A Best Practice Guide. (DOEHLG 2009)**

- 5.2.1. According to section 12.6, provision is made for consideration, as an alternative to single house development in rural areas developments at a density of fifteen to twenty units per hectare on, or inside the edge of small towns and villages if the

quantum does represent more than circa twenty percent of the total planned housing stock of the settlement.

6.0 The Appeal

6.1. Grounds of Appeal

An appeal was received from McCarthy Keville O'Sullivan Ltd., on behalf of the applicant on 29th April, 2019 which contains an outline of planning background and context and a description of the proposed development and it is requested that permission be granted.

6.1.1. According to the appeal:

- The proposal facilitates beneficial residential development in the village centre. All elements accord with relevant local, regional and national policies and objectives especially the CDP and in particular with regard to waste water treatment.
- The appropriate management of wastewater was a key design consideration in formulation of the application:

A Tier 1 site suitability assessment was undertaken to establish suitability for ground water discharge.

A Tier 3 hydrogeological assessment was undertaken to establish suitability for discharge of 30 cubic metres of treated effluent daily.

The sequential Batch Reactor secondary treatment plant supplemented by tertiary treatment in a stratified sand filter and the subsequent passage through a UV Disinfection filter prior to disposal eliminates shock loading.

The high level of treatment inclusive of nitrogen and phosphate removal with further polishing in the sand filter prior to the UV disinfection removes remaining pathogens.

The system is certifiable under The Building Control (Amendment Regulations).

A Groundwater Discharge License is to be obtained prior to occupation and,

The System will be subject to long term maintenance and long-term management

6.1.2. The attachments to the appeal include a copy of:

a soil suitability assessment and hydrogeological report/incorporating a completed site characterisation form,

a copy of a report issued by the GSI “Establishment of Groundwater Zones of Contribution: Ardrahan Group Water Scheme”, (February, 2018)

A specification for the proposed waste water treatment system, (Molloy Environmental Systems);

a draft Wastewater Treatment Service and Maintenance Agreement.

A Hydrogeological report for the Discharge License Justification incorporating appendices.

A Natura Impact Statement, (Appropriate Assessment)

6.2. **Planning Authority Response**

There is no submission from the planning authority on file.

7.0 **Assessment**

7.1. The planning authority decided to refuse permission based on one reason relating to the proposed arrangements for effluent treatment and disposal for the proposed development. However, the planning officer in the supplementary planning report also indicated that he considered the proposed development unacceptable due to concerns relating to the consolidation, integration with, and reinforcement of the built form of the village. Owing to the scope for *de novo* assessment at appeal stage, these matters will also be considered in the assessment and therefore the issues central to the determination of a decision are considered below under the following broad sub categories are:

Arrangements for wastewater treatment and disposal.

Strategic Planning and Plan Led Expansion and consolidation of the village.

Environmental Impact Assessment.

Appropriate Assessment.

7.2. Arrangements for wastewater treatment and disposal.

- 7.2.1. Notwithstanding the zoning of the application site lands for development, and apart from the concerns raised as to consolidation and expansion of the village as discussed above, the views of planning authority officials as indicated in the technical and planning officer reports about reliance on a private means for effluent treatment and disposal and, water supply are accepted and supported. In this regard it is noted that there are no objectives or evidence of any future short, medium, or long-term plans for investment in public infrastructure for, collection, treatment and disposal of effluent at Ardrahan. (All existing and permitted residential, commercial and institutional development at Ardrahan is or is to be serviced by individual privately provided and managed effluent treatment systems and water supply is sourced and supplied by the Ardrahan Group Water Scheme.)
- 7.2.2. The comprehensiveness of the specification for the communal treatment and disposal system, providing for a high standard of secondary and tertiary treatment prior to discharge to the ground, including details for monitoring and maintenance contract, as detailed in the application and appeal systems is acknowledged. However, having regard to this lack of investment in public infrastructure to service existing, permitted and possible future development and in the absence of any evidence of plans or proposals for the provision of such infrastructure investment it is considered that the proposed development should not be permitted.
- 7.2.3. Notwithstanding the comprehensive assessment reports provided in connection with the application and the appeal, there are contrasting observations within the hydrology and hydrogeology assessments conducted by the hydrogeological consultants on behalf of the applicant and on behalf the Ardrahan Group Water Scheme. Favourable consideration is not supported owing to:

- the limitations of the Regionally important karstified limestone aquifer which has high and extreme groundwater vulnerability and poorly productive bedrock, (the groundwater body identified as the GWDTE – Caherglassaun Turlough (SAC000238).
- limitations in capacity to predict, with doubt the direction of all flows through and onwards from the location given the underlying hydrogeological characteristics;
- the close proximity to the treatment tanks and polishing filter to the Ardrahan Group Water Scheme's boreholes and within their Zone of Contribution with regard to fluctuations in water quality and contamination risk characteristic of karst areas,
- Separately, notwithstanding the site-specific issues arising as discussed above, in addition to obtaining a grant of planning permission, it would be necessary for the applicant to obtain a license for the Discharge of Treated Wastewater from the Local Authority License. Serious concerns are expressed in the planning authority's internal reports, particularly those of the Environment Section and the Assistant Scientist's whose remarks regarding problems with ongoing management and maintenance of individual privately-operated systems following commissioning, and the local authority's lack capacity to oversee discharge licenses for the operation of private having regard to the Multi Unit Developments Act, 2011 as amended.

7.2.4. In view of the foregoing, it is considered that the reasoning relating to arrangements for effluent treatment and disposal attached to decision of the planning authority to refuse permission is reasonable and appropriate.

7.3. **Strategic Planning and Plan Led Expansion and Consolidation of the Village.**

7.3.1. While it is acknowledged that the application site lands have the benefit of zoning for development, the designation of the lands for significant development is at odds with the policy objectives for development to proceed in accordance with *the plan-led approach to securing this investment in the future*" in respect of Tier 5 settlements in

the Settlement Hierarchy provided for in section 12.6.6 of the Galway County Development Plan, 2015-2021. (CDP.) This is demonstrated by the dependence, indefinitely on a private effluent treatment and disposal system and boreholes for a water supply to serve the development due to lack of any existing or future plans for investment in such infrastructure to serve existing and future development at Ardrahan.

- 7.3.2. As such, in the absence of such investment, there is a constraint, at Ardrahan with regard to delivery of plan led expansion of the village, on zoned lands. As a result, Ardrahan is restricted in its capacity to contribute, sustainably to housing supply within the county by delivery of the identified alternative option for future occupiers to dwellings in larger towns and in the countryside as provided for in Section 12.6.6 of the CDP and in “*Sustainable Residential Development in Urban Areas. (Cities, Towns and Villages, (DOEHLG.) (the Guidelines.)* In the absence of such constraints, a modest, high quality, consolidation and expansion of the village would be supported.
- 7.3.3. Ardrahan is a ‘Tier 5’ Settlement (population less than 1,500) within the settlement hierarchy incorporated into the core strategy in the CDP. The provisions within Section 12.6 of the Guidelines for consideration of developments at a density of fifteen to twenty units per hectare on, or inside the edge of small towns and villages if the quantum does represent more than circa twenty percent of the total planned housing stock of the settlement is carried through into the CDP. Some of the ‘Tier 5’ villages according to section 12.6.6 of the CDP have potential for support additional growth as an alternative to residing in larger towns and, to meet the needs of those who do not meet the housing need requirements for development in the rural areas. Section 2.7, of the CDP indicates that growth should be at a scale appropriate to the village context, but a population growth metric is not provided for Tier 5 Settlements within the core strategy. A plan – led approach can be facilitated by investment in public infrastructure facilities in villages designated as Tier 5 settlements.
- 7.3.4. Modest, plan led expansion of existing Tier 5 Settlements (subject to availability of public infrastructure and facilities) offers a sustainable alternative to single house development in the countryside thus influencing the demand for single house development in the countryside, particularly within the area of GTPS in Galway. It is

understood that this policy objectives can effectively facilitate modest expansion in conjunction with consolidation of a village core.

- 7.3.5. Notwithstanding the zoning designation of the lands for development and the relatively low density provided for in the Guidelines, the current proposal, on its own as a twenty-three unit, first phase along with, and in conjunction with the thirteen unit second phase (details of which have been provided for information purposes), constitutes a significant expansion in the form of a somewhat sprawling, semi linear extension to the village over a significant parcel of land that lacks connectivity with the village core. It is at odds with the recommendations within the S28 Guidelines on proportions relative to an existing settlement and its character layout and, urban grain as is indicative in the supplementary planning officer report on the application. Smaller scale clusters, more representative of a 'wrap around' of the existing core of Ardrahan with evidence of permeability and direct linkage is desirable. It is acknowledged that existing settlements and their environments may have potential limitations in this regard.
- 7.3.6. In this regard, the planning officer notes the emphasis in the CDP policy, in Section 3.4.4, as to focus on centrally located sites in which development proposals reinforce the existing urban form and contribute to the sense of place by strengthening existing street patterns or creating new streets. It is agreed with the planning officer that a development reflecting these characteristics at Ardrahan which would be more compact in nature may be feasible on the northern section of the site, in conjunction with additional lands that are outside the application site. It is noted that there is no masterplan for the proposed two-phase development and it is recognised that there is no local area plan, framework plan or other detailed plan for Ardrahan as part of the CDP which could facilitate the planned expansion of the village. However, as previously discussed, potential expansion at Ardrahan is constrained by the lack of existing of planned investment in public infrastructure.
- 7.3.7. In view of the foregoing, it is considered that the proposed development would be at variance with the standards and objectives set out in the CDP and the recommendations within the S28 Guidelines by reason of the quantum of dwellings and sprawling layout outwards in a semi linear form over a parcel of land significant size relative to the existing village and lack assimilation and integration into and connectivity with the existing village core.

7.4. Environmental Impact Assessment Screening.

- 7.4.1. The submissions made in connection with the application and the appeal do not include an EIAR screening report.
- 7.4.2. The proposed development comes within Class 10 (b) (i) and within Class 10 (b) (iv) (iii) of Schedule 5 of the Planning and Development Regulations, 2001 as amended and is sub threshold. Mandatory and discretionary EIA would not be required in that the project is a low-density residential development of twenty-three detached houses comprising the first of a two-phase scheme providing for a total of thirty-six dwelling units on a site the size of which is 4.075 hectares is well below threshold. A preliminary examination has been conducted. The submissions lodged in connection with the application and the appeal do not include ecological assessments
- 7.4.3. Given the underlying regionally important karst aquifer with high to extreme groundwater vulnerability, the underlying turlough ground water body (GWDTE Caherglassaun Turlough) and, the reliance of the settlement's entire residential, commercial and institutional development on individual private facilities for effluent treatment and disposal to the ground and surface water collection and disposal, the issue of whether possible contamination of waters emanating from the proposed development on its own or, in conjunction with existing and other permitted development could affect European sites requires further consideration. This matter is addressed in sub-section 7.6 below.
- 7.4.4. Based on a preliminary examination, it can be concluded that no Environmental Impact Assessment Report is required in that there is no real likelihood of significant effects on the environment owing to the nature, size and location of the proposed development.

8.0 Appropriate Assessment

- 8.1. A Natura Impact Statement (NIS) prepared by the applicant's agent, was submitted with the application and with the appeal which has been consulted for of appropriate assessment purposes.

8.2. Appropriate Assessment Screening.

8.2.1. The site which is 4.7 hectares in area is a greenfield and formed from agricultural lands circa 120 metres to the south west of the village core of Ardrahan. It is over a regionally important karst aquifer with high to extreme groundwater vulnerability and within an area of 7,062 square kilometres being underlain by the Caherglassaun Turlough SAC 000238 groundwater body, classified as poorly productive bedrock.

8.2.2. Eight of the European sites, within the fifteen-kilometre buffer zone are identified as being within a “Likely Zone of Impact”. These sites are also underlain by the GWDTE Caherglassaun Turlough SAC 000238 (Groundwater Body.) These sites and their approximate distance from the application site location are listed below along with the assessment of direct and indirect impact within the NIS report.

8.2.3. European Sites within the Likely Zone of Impact.

Coole Garryland Complex SAC (000252) 3.9 km to the south west.

There is no potential for direct effects as there are no project works within the boundary of the European Site, there are no Annex 1 habitats or supporting habitats for the Site’s Qualifying species.

There are Pathways for indirect effects are via groundwater pathways for the qualifying interest (turloughs (3180) and Rivers with muddy banks with *Chenopodian rubric p.p. and bidention p.p.* vegetation.)

Carrowbawn, Newhall and Ballylee Turloughs SAC (002293) 5.4 km to the south east.

There is no potential for direct effects as there are no project works within the boundary of the European Site. There are Pathways for indirect effects are via groundwater pathways for the qualifying interest (turloughs (3180))

Lough Coy SAC (0002117) 4.7 km to the south east.

There is no potential for direct effects as there are no project works within the boundary of the European Site. There are Pathways for indirect effects are via groundwater pathways for the qualifying interest (turloughs (3180))

Termon Lough SAC (001321) 12.7 km to the south west,

There is no potential for direct effects as there are no project works within the boundary of the European Site. There are Pathways for indirect effects are via groundwater pathways for the qualifying interest (turloughs (3180)

Kiltarten Cave SAC (000268) 6.1 km to the south west.

There is no potential for direct effects as there are no project works within the boundary of the European Site, there are no Annex 1 habitats or supporting habitats for the Site's Qualifying species.

There is indirect potential for effects via groundwater pathways to one of the qualifying interests, namely caves. (8310)

Caherglassaun Turlough (SAC 000238) 6.5 km to the south west.

There is no potential for direct effects as there are no project works within the boundary of the European Site, there are no Annex 1 habitats or supporting habitats for the Site's Qualifying interests.

There are Pathways for indirect effects are via groundwater pathways for the qualifying interest (turloughs (3180) and Rivers with muddy banks with *Chenopodian rubric p.p. and bidention p.p.* vegetation.

East Burren Complex SAC (0002926) 8.9 km to the south west.

There is no potential for direct effects as there are no project works within the boundary of the European Site, there are no Annex 1 habitats or supporting habitats for the Site's Qualifying species.

There are Pathways for indirect effects are via groundwater pathways for the qualifying interest (turloughs (3180), *calcareous fens with cladium mariscus and species of caricion davalliana*, petrifying springs with tufa formation (*Cratoneurion*) and alkaline fens (7230),

Coole Garryland Complex SPA (4107) 5.1 km to the south west. The special conservation interest is Whooper swan, (A038)

There are no potential direct effects on the special conservation interests of the site: The project works are to be outside the boundary and there are no Annex 1 habitats or supporting habitats for qualifying species within the project site.

There are Pathways for indirect effects are via groundwater pathways for the conservation interest

8.2.4. Several European sites have been identified as being within fifteen kilometres distance from the site location but outside of the Likely Zone of Impact. These remaining European sites are not underlain by the GWDTE Caherglassaun Turlough (SAC 000238) and consist of SACS and SPAs. They are screened out in that further assessment is not required having regard to size and intensity of the project, the nature of Conservation objectives, qualifying and special conservation interests which comprise in the case of the SPAs several bird species, including wetland and water bird species and, in the case of the SACS, habitats including woodlands and turloughs, bat species other fauna and flora.

8.2.5. The SACs which are subject to the generic conservation objectives of the NPWS follow:

“To maintain or restore the favourable conservation condition of the Annex 1 habitats and/or the Annex II Species for which the SAC has been selected.”

Ardrahan Grassland SAC (002244) is 700 metres from site location. There is no connectivity to the site and the qualifying interests which are terrestrial in nature and therefore no pathway for effect is identified.

Castletaylor Complex SAC (000242) 2.3 metres to the north and,

Lough Fingall Complex SAC (000606) 4.1 km to the north west. The qualifying interests for these two sites are turloughs, (3180) and some habitats. The SAC is in a different waterbody to the site.

Ballinduff Turlough SAC 3.3 km to the south, Kiltiernan Turlough ((001285) 3.4 km to the north west, Cahermore Turlough SAC (002294) 5.4 km to the south west, Rahasane Turlough SAC (000322) 5.6 km to the north, the Termon Lough SAC

(001321) 12,7 km to the south. The qualifying interests for these sites are Turloughs (3180)

The East Burren Complex SAC (001926) 8.9 km to the south west. The qualifying interests are several habitats, otter and lesser horseshoe bat.

Peterswell Turlough SAC (000318) 4.3 kilometres. The qualifying interests are Turloughs (3180) and rivers with muddy banks. (3270)

The Sonnagh Bog SAC (001926) 9.7 to the south east. The qualifying interest is blanket bogs (7310)

Lough Cutra SAC (000299) 11.7 kilometres to the south. The qualifying interest is Lesser Horseshoe Bat (1303)

The Drummin Wood SAC (002181) is 12.8 kilometres to the south and the Gortacarnaum Wood AC (0022180) The qualifying interest is old sessile oak woods (910A)

The Lough Rea SAC (0003043) 14.2 kilometres to the north east. The qualifying interest is Hard oligo mesotrophic waters with benthic vegetation (3140)

Galway Bay Complex SAC (000268) 7.5 km to the south west is not subject to the generic conservation objective. The qualifying interests are several coastal habitats, otter and harbour seal. (Detailed conservation objectives have been identified by NPWS in 2013 and are available on the NPWS website.)

8.2.6. The following SPAs are subject to the generic conservation objectives of the NPWS.

" To maintain or restore the favourable conservation condition of the bird species listed as special conservation interest for the SPA".

Coole Garryland Complex SPA (4107) 5.1 km to the south west. The special conservation interest is Whooper swan, (A038)

Rahasane Turlough SPA (004089) 5.8 km to the north. The special conservation interests are, Whooper swan, (A038) Wigeon, (A050) Golden Plover, (A410) Black tailed Godwit, (A156) the Greenland White fronted Goose. (A395) and wetland and

waterbirds, (A999) The site location is outside the core foraging distances for the species. Disturbance related effects are not anticipated.

Slieve Aughty Mountains SPA (004168) The special conservation interest is the Hen Harrier (A082) and the Merlin (A098)

The Lough Cutra SPA (004056) is 11.7 kilometres from the site. The special conservation interest is the Cormorant (A017)

The Creegganna Marsh SPA (004142) is 12.3 kilometres from the site. The special conservation interest is the Greenland White fronted Goose. (A395)

The Lough Rea SPA (004134) is 14.4 kilometres north east from the site. The special conservation interests are Shoveler, (A056), Coot (A125), and Wetland and Water birds. (A999)

The Inner Galway Bay SPA (004031) 7.5 km to the west is not subject to the generic conservation objective. The qualifying interests are several bird species including wetland and waterbirds. (Detailed conservation objectives have been identified by NPWS in 2013 and are available on the NPWS website.

8.2.7. The European sites beyond the fifteen kilometres' buffer zone also underlain by the GWDTE Caherglassaun Turlough SAC 000238 (Groundwater Body) have been identified and assessed as being outside the Likely Zone of Impact, in that they do not have watercourses or other pathway-links or connectivity to the site of the proposed development. These sites are also screened out in that further assessment is not required having regard to size and intensity of the project, the nature of Conservation objectives, qualifying and special conservation interest which comprise in the case of the SPAs several bird species, including wetland and water bird species and, in the case of the SACS, habitats including woodlands and turloughs, bat species other fauna and flora.

8.2.8. On the basis of the foregoing, it is concluded that the project is likely to have a significant effect indirect effect on the integrity of the following European sites in view of the sites' conservation objectives.

Coole Garryland Complex SAC (000252).

Carrowbawn, Newhall and Ballylee Turloughs SAC (002293)

Lough Coy SAC (0002117)

Termon Lough SAC (001321),

Kiltarten Cave SAC (000268) 6.1 km to the south west.

Caherglassaun Turlough (SAC 000238) 6.5 km to the south west.

East Burren Complex SAC (0002926)

Coole Garryland Complex SPA (4107)

- 8.2.9. As a result, it has been concluded that a stage 2 appropriate assessment is required. The stage 2 appropriate assessment follows:

8.3. Appropriate Assessment. (Stage 2)

- 8.3.1. The project comprises twenty-three detached houses and associated site works on a greenfield site. It is the first phase of a two phase relatively low-density residential development of thirty-six detached dwelling units. It is to be serviced by a communal wastewater treatment and disposal system providing for primary, secondary, (sequential batch reactor secondary treatment plant) tertiary treatment in a stratified sand polishing filter incorporating UV treatment followed by pumping to a gravel disposal pad at the south west end of the site lands. Tertiary treatment is to include UV treatment.
- 8.3.2. Surface water is to be collected and directed to an infiltration pit designed for a 100-year storm return period. A petrol interceptor is to be provided for treatment of all stormwater runoff prior to discharge to the pit and individual soak pits in the rear gardens are to be provided for each dwelling.
- 8.3.3. Water supply is to be sourced via an on-site bore well which according to testing conducted has a 55 cubic metre per day capacity which is sufficient to serve ninety dwellings. The design and layout are stated to accord with the Irish Water Code of Practice.
- 8.3.4. The potential indirect effects for the qualifying interests and conservation interest for the eight European Sites within the "Likely zone of impact" and which are underlain by the Caherglassaun Turlough specified in para 8.2.8 are related to water quality.

The potential pathways to these sites are conduits within the bedrock through which effluent emanating from the development, alone and in combination with effluent emanating from other developments could reach and adversely affect habitats and species which are qualifying interest and special conservation interests of designated European sites.

- 8.3.5. While the potential for direct adverse effects on these sites can be ruled out as indicated in the NIS, contrary to the conclusions within the NIS there is concern that the potential for indirect adverse effects cannot be ruled out. This is due to the potential pathways via which polluted waters emanating from treated and disinfected effluent emanating from the development discharged to the ground which in combination with discharged effluent from other developments could adversely affect ground water quality and in turn have adverse impact on qualifying interests and special conservation interests of the European sites within the likely zone of impact and underlain by the Caherglassaun Turlough. In this regard, uncertainties in groundwater flow direction through karstified underlying bedrock irrespective whereby flow could be multi directional, depending on characteristics of underlying fractures and conduits relative to surface topography as pointed out in the hydrogeologist's report accompanying the observation submitted to the planning authority at application stage by the Ardrahan Group Water Scheme.
- 8.3.6. There is design mitigation within the project which is a multi-unit residential development serviced by the on-site wastewater treatment plant with discharge to the groundwater following tertiary treatment and UV disinfection, in line with the EPA Code of Practice. The assessments and conclusions arrived at within the hydrological report to provide justification that a Discharge License is feasible for the discharge of treated domestic effluent to the groundwater vis subsoil, which is appended to the NIS based on which it is stated that the underlying bedrock has the capacity to accept discharge of the treated effluent with deleterious negative impact is noted.
- 8.3.7. However, a comprehensive assessment based on scientific evidence is not apparent and available within the NIS to support this conclusion that these design mitigation measures by way of ongoing and indefinite implementation at operational stage will be fully compliant with required standards so as to ensure there is no potential for contaminated ground water to cause potential for significant indirect effects on the

qualifying Interests or on the special conservation interests of the European sites within the Likely Zone of Impact and underlain by the Caherglassaun Turlough.

- 8.3.8. These concerns arise having regard to the information, remarks and recommendations of the Assistant Scientist as set out in her report on behalf of the planning authority on the application gives rise to serious concern as to whether it can be established that there is no potential for project alone or in combination with other projects to adversely affect the integrity of European sites, having regard to the requirement for application of precautionary principles in appropriate assessment.
- 8.3.9. The Assistant Scientist in her report gives an account of environmental legacy issues that have arisen in County Galway further to implementation of the Multi Unit Development Act, 2011, as amended whereby privately provided individual water and wastewater infrastructure to service multi-unit housing developments (in excess of eight houses) where public infrastructure is not available were authorised with more than one hundred and twenty of these developments requiring discharge licenses. Many of these multi-unit housing developments have never been compliant with the licenses in place, according to her report and she attributes to inadequate maintenance of the individual private wastewater infrastructure servicing these developments. She emphasises, in her report that due to the complicated hydrogeology in Galway, not least in the area in which the application site is located, considerable expertise is essential to the design and installation of such plants and that serious difficulties arise following transfer to management companies, due to lack of available engineering and caretaker expertise for maintenance.
- 8.3.10. In her report, the Assistant Scientist explains that due to lack of capacity, (in staffing) of the local authority to fulfil its functions with regard to licensing, monitoring and enforcement. She states that as a result of lack of compliance with maintenance contracts and specifications, and the lack of capacity to provide for monitoring and oversight by the local authority, there is an increase in risk of adverse effect on water quality and significant concern arises as to certainty with regard to risk of contamination of discharged waters, groundwater quality being particularly susceptible to fluctuations.
- 8.3.11. Furthermore, while within the NIS there is an account of some planning applications for developments for which permission has been granted within the past five years,

there is no further account or assessment of in combination affects with existing and permitted plans and projects to as to establish in combination effects on European sites underlain by the Caherglassaun Turlough within the Zone of Likely Impact. Notwithstanding the underlying hydrogeological characteristics, this is a particular concern with regard to quantitative assessment, given that all residential, commercial, industrial and institutional development at Ardrahan is dependant, for servicing on individual private effluent treatment and disposal systems.

8.3.12. It is considered, based on the information available that it cannot be established with certainty, that the proposed development individually and in combination with other plans and projects would not adversely affect the integrity of European sites.

8.3.13. In the event of possible favourable consideration of the current proposal and or future development proposals it is recommended that a more comprehensive NIS be required from the applicant in which the matters raised above with regard to the monitoring and maintenance of the proposed arrangements for effluent treatment, disinfection and discharge so as to establish ongoing compliance with license standards and requirements and monitoring and the impacts of the project alone and in combination with other projects are comprehensively assessed. In addition, it would be advisable for the National Parks and Wildlife Service to be notified and invited to submit observations.

8.3.14. On the basis of the information provided with the application and the appeal, including the Natura Impact Statement and in the light of the assessment carried out above, I am not satisfied that the proposed development individually or in combination with other plans or projects would not adversely affect the integrity of the European sites listed below in view of their Conservation Objectives. In such circumstances, the Board is precluded from granting permission for the proposed development.

Coole Garryland Complex SAC (000252).

Carrowbawn, Newhall and Ballylee Turloughs SAC (002293)

Lough Coy SAC (0002117)

Termon Lough SAC (001321),

Kiltarten Cave SAC (000268) 6.1 km to the south west.

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Coole Garryland Complex SPA (4107)

9.0 Recommendation

- 9.1. In view of the foregoing, it is recommended that the planning authority decision be upheld and that permission be refused. Draft Reasons and Considerations, which are considerably broader in scope than the reasoning attached to the planning authority's decision to refuse permission are set out below

10.0 Reasons and Considerations

1. Notwithstanding the zoning of the application site lands for residential development and the designation of Ardrahan in the settlement hierarchy in the core strategy as one of the 'Tier 5' settlements some of which, according to section 12.6.6. of the Galway County Development Plan, 2017-2023 have potential for support additional growth, it is considered that by reason of the absence of existing and future plans to provide public sewage infrastructure facilities to serve Ardrahan and the reliance on individual private effluent treatment systems to serve existing and future development in an area which is underlain by karstified bedrock, the proposed development would be premature due to the deficiencies in the availability public sewage infrastructure facilities serving the area and period within which such constraints might reasonably expected to cease and would be prejudicial to public health. The proposed development would therefore be contrary to the proper planning and sustainable development of the area.
2. It is considered that the size of the development which is a low density detached house development on a parcel of land which is considerable in area constitutes a significant and somewhat detached addition to the existing settlement in a sprawling semi linear layout which lacks linkage into and

integration with the existing village through connectivity and permeability and fails to reinforce, strengthen and consolidate the existing urban form or to contribute to sense of place at the village of Ardrahan. As a result, the proposed development would be contrary to the provisions of section 3.4.4 of the *Galway County Development Plan, 2017-2023* according to which new development proposals should achieve a good quality development that reinforces the existing urban form and contributes to a sense of place by for example strengthening, for example the street pattern or creating new streets and, section 6.3 (e) of *“Sustainable Residential Development in Urban Areas. (Cities, Towns and Villages), (DOEHLG.) (2009)* according to which the scale of new residential schemes for development should be in proportion to the pattern and grain of existing development proceeding at smaller towns and villages, on the basis of a number of well-integrated sites within and around the village centre rather than focusing on rapid growth driven by one very large site. The proposed development would therefore be contrary to these policy objectives and to the proper planning and sustainable development of the area.

3. The information available in the submitted Natura Impact Statement and in the application and the appeal, is insufficient to enable the Board to determine whether the proposed development individually or, in combination with other plans or projects would not affect the integrity of European sites in view of their conservation objectives. In such circumstances the Board is precluded from granting permission for the proposed development.

Jane Dennehy
Senior Planning Inspector
13th August, 2019.