

Inspector's Supplementary Report ABP306355(a)

Development Irish Water Compulsory Purchase

Order Roundstone Sewerage

Scheme.

Location Roundstone, County Galway.

Planning Authority Galway County Council.

Planning Authority Reg. Ref. N/A.

Applicant(s) Irish Water.

Type of ApplicationNotice of the Compulsory Purchase of

Lands under the Water Services Act

2007-2013. Planning and

Development Act 2000 (as amended)

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and the Housing Act 1966.

Planning Authority Decision N/A.

Objectors Anne King, Noel Coyne.

Date of Site Inspection 12th January, 2022.

Inspector Paul Caprani.

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1.0 Introduction and Background

- 1.1. Irish Water is seeking confirmation from An Bord Pleanála for a Compulsory Purchase Order in order to provide lands to facilitate the Roundstone Sewage Scheme in the village of Roundstone in south-west Galway. The Compulsory Purchase Order relates to the compulsory acquisition of rights over land including permanent acquisition of lands, wayleaves over lands, temporary working rights and rights of way over various parcels of land within the village in order to provide a new wastewater treatment plant and associated infrastructure including rising mains and pumping stations.
- 1.2. The preferred site for the wastewater treatment plant is to be located approximately 500 metres north of the village of Roundstone in West Galway. The application was lodged with the Board on 9th January, 2020. Two objections were received from landowners affected by the CPO namely Anne King and Noel Coyne. Due to Covid restrictions an oral hearing was not held in respect of the proposal until the 15th March, 2021 (14 months after the application was lodged). My initial report on foot of the application and oral hearing recommended that An Bord Pleanála should not confirm the CPO before it on the basis that the Board is not satisfied that a demonstrably more suitable site exists within the agglomeration which would not compromise the future development of the village. Furthermore, I concluded that it has not been demonstrated that there are alternative sites within the agglomeration which, if accommodating a wastewater treatment plant, would have a lesser impact on sensitive receptors in the vicinity. I also concluded that the preferred site to the north of the agglomeration was primarily chosen on the basis of engineering considerations to the detriment of wider planning land use and amenity considerations. On this basis I recommended that the application for the CPO of lands in this instance be annulled.
- 1.3. My initial report was considered at a Board meeting held on 11th May, 2021. The Board decided to defer consideration of the case and requested the applicant to submit further information in respect of the following:

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2.0 **Board Direction**

The Board decided to defer consideration of this case and to issue a Section 132 notice to the applicant regarding the following:

- In respect of the applicant's preferred site for the wastewater treatment plant (WWTP),
- (i) It is noted that the site is located on elevated lands (25m AOD) on the main approach road into the village of Roundstone. The village undoubtedly possesses significant picturesque and scenic qualities and is located on the Wild Atlantic Way, a premier tourist route within the State. Roundstone is also an important tourist destination in itself. It attracts a high landscape value rating (2nd highest rating) in the County Development Plan. The development of a wastewater treatment plant on the approach to the village on elevated grounds could have a significant and material impact on the visual amenities of the area. The applicant is requested to comment on the potential for alternative sites, some of which were considered, which might be less sensitive in visual terms.
- (ii) It is noted that the site is also located in closer proximity to a number of sensitive receptors than other sites which form part of the site selection process. In evaluating this issue, it is further noted that the same weighting was applied to any site which was located in excess of 50 metres from sensitive receptors. The preferred site appears to be located within 80 metres of the nearest holiday home and this distance would appear to be less than the distance other considered sites are located from sensitive receptors. The applicant is requested to comment on the appropriateness of the evaluation methodology in terms of not assigning a more preferential score to any site which is located further/furthest from sensitive receptors.

- (iii) It is noted that the site would require the construction of an access road of approximately 180 metres in length across what might be challenging terrain and might require the removal of significant amounts of rock outcrop in order to accommodate the WWTP at this location. In contrast, other sites might not involve the construction of access roads at all, or the construction of such long access roads, and might not require the same level of excavation in the construction of access roads as the preferred site. In this regard, it is also noted that there is a requirement, in the case of the preferred option, to construct a new 430 metres outfall gravity pipe to connect with the existing outfall for Network 3. The applicant is requested to comment on what might be relatively significant construction costs associated with the preferred option.
- (iv) It is noted that, in both the written documentation and at the oral hearing, the applicant indicated that the preferred option would have the advantage of utilising an existing outfall (outfall serving Network 1) and therefore no new outfall would be required to be built as part of the preferred option. It is further noted that the RPS Report (Roundstone Sewerage Network – Condition Report- Sept 2015 - Appendix 4 of Book 1 of Irish Water's submission at the oral hearing and hereafter referred to as the RPS Report) stated in section 2.3.1 "the caretaker indicated that the outfalls are constructed in clayware and uPVC pipe surrounded in concrete and laid along the seashore. None of the sea outfalls have flap valves. The caretaker also indicated that the concrete encased clayware sea outfall at network 1 (the oldest network), had disintegrated and the pipe is broken in places, effectively reducing the length of the outfall". The applicant is requested to comment on the likelihood that the reference to disintegration of the outfall might suggest that this outfall, which appears to be the longest of all the outfalls (c. 60 to 70 metres in length), will have to be replaced in its entirety, and whether this has been factored into the cost estimates (in appendix C of the Site Selection Report).

(v) It is noted that Network 1 might be the oldest of the three networks, having been constructed in the 1920's, and that the applicant might consider the utilisation of the existing gravity sewer network along Main Street to be of major benefit in the context of the preferred option. While it is noted that the utilisation of an existing gravity sewer, into which all other networks could feed, might be of significant benefit in terms of cost and limiting the disruption along Main Street during the construction phase, the RPS Report indicates that a CCTV survey of the network, which was undertaken in 1997, indicated (on page 5) that there were multiple issues with the clayware, uPVC and concrete pipe network. These issues included (a) where clayware is in poor structural condition and in danger of imminent collapse with multiple fractures, deformities and breaks, (b) intruding pipe connections, (c) deformation of uPVC pipe work, (d) infiltration, and (e) root ingress at joints. The report goes on to note that while this CCTV report is 18 years old (at the time of writing the report, 24 years old now) and that while "some repairs have been carried out since then, it is likely that the condition of the pipework has deteriorated further since the survey was completed". Therefore, while parts of the network might be suitable for reuse, there might be a requirement for significant upgrading and, in some parts, a requirement for the entire replacement of the network. It might, therefore, be reasonable to conclude that it might be necessary to carry out extensive works along Main Street to ensure that the gravity sewer is fit for purpose. This might undermine the benefits that might otherwise accrue from utilising the gravity sewer, in terms of minimizing disruption to premises along Main Street which, it is noted, is seen as a major benefit of the preferred option over other options, particularly those involving placing the WWTP on a site to the south of the village. It is noted that locating a WWTP to the south of the village would likely involve the construction of a rising main along Main Street, and this might inevitably involve significant disruption during the construction phase. The applicant is requested to comment on the extent to which such disruption might be avoided under the preferred option.

- (vi) It is noted that the applicant's case appears to be essentially predicated on the benefits to be derived from intercepting and collecting effluent from Networks 1 and 2 and allowing this wastewater to be conveyed by gravity to a terminal pumping station at the north end of the town. The entire load would be pumped from the proposed terminal pumping station c430 metres up a static head differential of 19 metres to the WWTP (c.6m AOD to 25m AOD). It is understood that the applicant's case is that this would be preferable to pumping southwards along Main Street over a distance of c1km, up a static head differential of c.15m (c. 6m AOD to 21 AOD), and that this would represent greater value for money in terms of operational costs. The applicant is requested to elaborate further in this regard.
- (vii) The applicant is requested to confirm whether the static head differential between the terminal pumping station and the highest point on Main Street is 10 metres (as indicated in the application documentation) or 15 metres (as indicated at the oral hearing), and the implications for the relative cost of pumping the effluent southwards along that street compared to the cost of pumping northwards to the applicant's preferred site.
- (viii) The applicant is requested to clarify the approximate length of a new rising main which would be required in order to convey effluent from the north of the village to an alternative site to the south of the built-up area. It is noted that the natural topography of the land might suggest that there is a general fall in the topography along Main St from the Roundstone House Hotel southwards¹. The applicant is therefore requested to comment on the potential for a gravity main (as opposed to rising main) to convey effluent to any wastewater treatment plant to the south of the village and the potential, thereby, to reduce operational costs. In this regard, it is noted that there might be a general fall in topography from c17m AOD from the highest point on Main Street to c6m AOD on lands to the south of the IDA Park.

¹ The Roundstone Hotel is approximately 70 m to the south of the lower pier on the west side of the Main Street.

- (ix) The applicant is requested to comment on whether any pumping of effluent southwards via a rising main along Main Street might only be required to convey effluent from the houses and commercial premises served by Network 1 within the village and that, therefore, only a portion of the effluent generated within the village might be required to be pumped via a rising main. In the case of the preferred option, it is noted that the entire effluent of the village (all three networks) might be required to be pumped up to the wastewater treatment plant, and that this might require more energy, and therefore higher operational costs, than an alternative option involving pumping of effluent southwards via a rising main along Main Street.
- (x) The applicant is requested to comment on the RPS Report's consideration that a site to the south of the village is the only viable site to accommodate a wastewater treatment plant for the village of Roundstone. In this regard, it is noted that Galway Co Council has recently granted planning permission for a smaller packaged treatment plant on lands to the south to serve 10 dwelling houses and 4 commercial units under Reg Ref 19/1902. While this application might have superseded the application being considered by the Board, and this is a relatively small treatment facility, it nevertheless demonstrates that those lands might be suitable to accommodate a WWTP and there might, therefore, be scope for synergy. Documentation submitted with the application indicates that the existing pumping station, underground pipework and outfall to the estuary associated with the previous IDA WWTP on site (to be decommissioned) are to be retained. The applicant is requested to comment on how this was considered in the site selection exercise.
- (xi) In terms of the site-specific criteria adopted, the technical requirements make reference to the following "where possible, sites located at a low point in proximity to the existing network should be identified in order to minimize pumping requirements (and in turn energy requirements) and in

order to minimize requirements for additional infrastructure. ...sites below the 40m control are considered more favorable". The IDA site (for example) appears to be located on low ground c. 6m AOD, and therefore might be considered more preferable than the preferred site which is located at ground levels c 25 AOD. A site on lower ground, closer to the coast and, therefore, closer to any eventual outfall location, might have inherent advantages. The applicant is requested to comment on how this was considered in the site selection exercise.

- (xii) It is noted that the applicant's preferred site is located in closer proximity to a Record of Monuments and Places (RMP) than most, if not all, of the other sites. While the preferred site appears to have achieved the most favourable score (10) for archaeology, the IDA site (for example) appears to have achieved the least favourable score (50). In addressing this issue at the oral hearing, it is understood that the applicant suggested that the IDA site is generally located closer to the village and is therefore more susceptible to being in closer proximity to historical or archaeological features. Yet pumping station No. 3 on Site D (the preferred site), notwithstanding the fact that is in much closer proximity to these archaeological and historical features in the centre of the village, was awarded a favourable score in terms of its impact on archaeology. It might therefore be considered that there is an inconsistency on this matter. The applicant is requested to comment on whether IDA site (for example) might be considered to be sufficiently far removed from the village and that there might, therefore, be no apparent justification to attribute such a poor score in respect of this criterion.
- (xiii) It is noted that the applicant's preferred site, at its closest point, is located c.80 metres from the nearest residential dwelling, whereas the IDA site (for example) is located over 130 metres from the nearest residential unit.

 Proximity to any future WWTP has significant implications for surrounding residential amenity. The applicant is requested to comment on why the IDA site should not have been ranked higher under this criterion.

- (xiv) In the context of the compatibility of adjacent land uses in the determination of potentially suitable sites, Site 1 (for example) might be considered preferable as the IDA lands are the only developed lands in the vicinity of the site. Furthermore, planning permission has been granted for a WWTP to the south of the IDA lands, and the provision of an additional treatment plant, or indeed the expansion of the plant which has the benefit of planning permission could result in a concentration all the wastewater treatment facilities at one location within the village and could therefore result in compatible land uses at this location. The applicant's preferred site on the other hand is located in proximity to residential dwellings to the northeast and southeast of the site, the closest of which is 80 metres from the boundary of the proposed WWTP. The applicant is requested to comment on whether Site 1 might be more appropriate under this criterion, and whether the provision of two separate WWTP's at two separate locations, to serve one small village, would be appropriate.
- (xv) It is noted that, with regard to potential for disturbance, Site 1 attracted a score of 25 whereas Site 3 attracted a preferable score of 15. The applicant is asked to comment on whether, having regard to the poor condition of the existing network, particularly Network 1, Sites 1, 2 and 3 would be likely to give rise to similar amounts of disturbance and disruption along Main Street and therefore should have attracted a similar, if not the same, score.
- (xvi) It is noted that the Site Selection Report notes that the IDA site (for example) "is assumed to have a 3 phase power supply" as is the case for the preferred site. Yet the preferred site received the highest score of 5 (weighted) whereas the IDA site received a less advantageous score of 15. The applicant is requested to explain this apparent inconsistency.
- (xvii) It is noted that, in terms of construction costs, the applicant's preferred option might require a new outfall gravity sewer to be constructed (c270)

metres of which might be along the public road) from the WWTP to the outfall and might be likely to require the reconstruction of outfall No.1. The IDA site (for example) on the other hand, being located so close to the coastline, might not require such an extensive discharge sewer to the outfall, as this sewer might be of the order of 60-70 metres. Furthermore, it is noted that the IDA lands already incorporate a pumping station and outfall that might be capable of being used or adapted to cater for any new WWTP. An outfall closer to the mouth of the bay in a less sheltered area might prove to be more efficient in term of dilution and dispersion and, while it is accepted that this would have to be subject to more detailed hydro-dynamic modelling, the applicant is requested to comment on whether, prima facie, greater levels of dispersions and dilution might occur at the mouth of the bay than further north in the sheltered inlet.

- (xviii) Developing the preferred site might also be more challenging in terms of construction and excavation. The IDA site is level and will be the subject of construction and excavation works associated with the construction of a new WWTP under 19/1902. A synergizing of both projects could prove beneficial in terms of construction costs.
 - (xix) Notwithstanding the above points in relation to construction costs, it is noted that the applicant's preferred site was awarded a more preferable score of 15 compared to the IDA site (for example) which was awarded a score of 45. The applicant is requested to justify this apparent anomaly.
 - (xx) It is noted that the Site Selection Report suggests that the operational costs associated with Site 1 (for example) are in excess of the costs associated the applicant's preferred site, to the extent these sites are scored 80 and 20 respectively. On the basis of the applicant's case being apparently predicated on the benefits derived from intercepting and collecting effluents from Networks 1 and 2 and allowing this wastewater to be conveyed by gravity to a terminal pumping station at the north end of the town and, in particular, to the apparent requirement of the terminal

pumping station to pump the entire effluent load associated with the agglomeration a distance of 430 metres up a static differential head height of 19 metres in the case of the preferred option, when compared with the construction of a new rising main along Main Street which might be required to pump only a portion of the overall effluent generated within the agglomeration a slightly longer distance, possibly slightly in excess of half a kilometre, the applicant is requested to explain these operational costs. In this regard, it is noted that no details are provided in the financial scores attributed to Site 1 (IDA) or Site 3 (preferred) in terms of financial costs, with the report only stating, in relation to Site 1, that "this site is ranked fourth out of five in relation to construction / capital costs" and "This site is ranked fourth out of five in relation to operational costs over a 30 year period". In relation to Site 3, the report likewise only states that "This site is ranked first out of five in relation to construction / capital costs" and "this site is ranked first out of five in relation to operational costs over a 30 year period". It is noted that, while costs are provided in a spreadsheet in appendix C of the report, no detailed explanations are provided as to how these costs were arrived at.

3.0 Response to Further Information Request

Irish Water submitted a response to the additional information request on September 28th 2021. This is summarised below.

3.1. Response to Further Information Request 1(i) – Visual issues

3.1.1. The site selection report acknowledges that the elevated nature of the preferred site provides greater challenges to screen the development but that this challenge is not insurmountable. The site is located away from the public road which creates greater increased noise and odour buffer distances. The distance will ensure that the site is less noticeable when viewed from the R341. The rock outcrops will also provide an element of natural screening. Houses in the immediate area will continue to be the most dominant feature when looking towards the site. It is stated that Sites 1 and 2

were given better scores because of the lack of residential development in the vicinity rather than the site's capacity to accommodate a wastewater treatment plant.

3.2. Response to Further Information Request 1(ii) – Proximity to sensitive receptors

- 3.2.1. Irish Water have based their scoring criteria on separation distance on the basis of the EPA's Wastewater Treatment Manual for Small Community, Businesses, Leisure Centres and Hotels. The identification of potential sites was based upon constraints mapping with the identified sites required to only ensure that a cordon sanitaire of 50 metres was met. The subject site is:
 - 84 metres from the nearest residential property,
 - 106 metres from the location of the proposed settlement tanks.
 - 99 metres from the nearest dwelling exterior to the sludge tank and
 - 121 metres to the settlement tanks.
- 3.2.2. The response states that the preferred site could be extended northwards to further extend the separation distances between the wastewater treatment plant and residential dwellings in the vicinity. But this may result in the acquisition of lands beyond the requirement for the needs of the wastewater treatment plant.
 - 3.3. Response to Further Information Request 1(iii) Road construction issues

The comparative cost estimates (set out in Appendix C of the additional information submission) developed for the five options were based on itemised cost breakdowns which were reliant to various cost curves. However, since the oral hearing the scheme has been further advanced and revised costings have been provided as per Appendix A of the submission. It is noted that the cost for the IDA (Site 1 – Road construction) is €125,940 whereas the cost for the preferred site (Site 3 - Road construction) was €128,56.

3.4. Response to Additional Information Request 1(iv) – Replacing the existing outfall

3.4.1. The observed damage to Outfall serving Network No.1 occurs at the very end of the sea outfall only. It is not foreseen that the entire outfall will have to be replaced. The construction of Outfall 1 was not factored into the original cost estimates and an

amount of €39,308 has now been allocated for the costs of the repair to Outfall No. 1.

- 3.5. Further Information Request (1)(v) Structural condition of gravity sewer on main street and the requirement for a significant upgrade
- 3.5.1. The sewage network along Main Street consists of 225 millimetre PVC pipes. The anecdotal references to the original clay ware pipework in the original documentation is therefore misleading. The most recent report (2018) notes that "other than some grease and attached deposits, network 1 appears to be in good condition and the network appears to be structurally intact". The life of the PVC is expected to be 100 years. On this basis it is considered that the existing network along Main Street is entirely fit for purposes. Details of CCTV footage of the existing gravity main along main street are submitted with the response. The footage indicates that the sewerage infrastructure is generally in good condition. Whereas Options 1 and 2 would require the construction of a new rising main along the entire length of Main Street. This it is argued is a significant advantage for the preferred option over other options.
- 3.6. Further Information Request 1(vi) operational costs of pumping effluent, option 1 (IDA Site) versus option 3 (preferred site).
- 3.6.1. It is stated that a further topographic survey was undertaken in December, 2019 which provides more accurate topographical data subsequent to finalising the site selection report. A more detailed and accurate pumping permeations are presented for Options 1 and 3. The hydraulic pumping profile presented in the additional information response notes that Site 3 provides the more economical 'Duty Head' of 44.4 meters compared with a duty head of 47.7 metres for Site 1. As such Site 3 therefore offers slightly better value for money.
- 3.7. Further Information Request 1(vii) Clarification of the static head differential between the terminal pumping station and the highest point on main street
- 3.7.1. Based on more detailed and robust surveys carried out in December 2019, these studies confirm that the static lift to the high point along Main Street is 16.48 metres. Based on energy costs therefore, it is considered that the operational costs for both options 1 and 3 are similar with Option 3 (preferred site) having a slight advantage.

- 3.8. Further Information Request 1(viii) Investigate the potential to provide a gravity main from the high point on main street
- 3.8.1. Irish Water note that the approximate length of a new rising main to the top of Main Street to Site 1 would be 1,086 metres. However, the entire length of the pipe from the high point on Main Street to Site 1 cannot entirely be fed by a gravity sewer as there is a low point along the network which would require an additional low lift pumping station a distance of approximately 150 metres to any wastewater treatment plant located on IDA lands.
- 3.9. Further Information Request 1(ix) The proportion of the network that requires effluent to be pumped to the wastewater treatment sites under the various options
- 3.9.1. It is stated that the proposed intercepting pumping station for Networks 2 and 3 are required for both options, however due to the low point in the natural topography along the alignment to Site 1, it is not possible to gravitate entirely to any wastewater treatment plant in the IDA lands. A low lift pumping station would be required and this would result in the provision of four pumping stations along the network. This will lead to additional operation costs when compared with the preferred alternative of 2 intermediate pumping stations (Networks 2 and 3) followed by a single terminal pumping station and rising main to deliver all flows to the preferred site of the wastewater treatment plant.
 - 3.10. Further Information Request 1(x) RPTs conclusion that the site to the south of the village is the only viable site to accommodate a wastewater treatment plant and the fact that Galway County Council have recently granted planning permission for a smaller package wastewater treatment plant to the south of the village. The applicant is therefore asked to investigate whether or not there is any scope for synergy between these two wastewater treatment plants.
- 3.10.1. The IDA are seeking to protect any undeveloped land within its landholdings for economic development activity including the potential for a remote working hub. The IDA seeks to maximise its economic potential by reducing non-economic generating development and hope to decommission their wastewater treatment plant once a larger wastewater treatment plant for the agglomeration has been commissioned.

- The Board are asked to note that the IDA application for a wastewater treatment plant was lodged after the Irish Water site selection report was completed.
- 3.11. Further Information Request 1(xi) Technical requirements for locating the wastewater treatment plant at a low point in proximity to the existing network where sites below 40 metres AOD are more favourable
- 3.11.1. The fact that Site 1 is located at a lower elevation than Site 3 does not necessarily translate into a favourable pumping solution because the longer length of rising main required to serve Site 1 dries up the pipe friction and fitting head losses and these are the ultimate factors in determining pump selection.
- 3.12. Further Information Request 1(xii) Scoring criteria in relation to archaeological issues
- 3.12.1. Whilst the preferred site is located 125 metres from a recorded monument (A corn drying kiln) this is due to be deleted in the next revision of the RMP. There is generally a lower density of archaeological finds to the north of the village. Site 1 is located close to the former Dominican Monastery and associated graveyard. It is assumed that the potential for archaeological finds at the IDA site is high. The poor score is based on the proximity of the remains of a monastery site rather than distance to the village.
- 3.13. Further Information Request 1(xiii) Proximity to residential dwellings
- 3.13.1. In relation to this issue reference is made to the response contained in respect of further information request 1(ii).
- 3.14. Further Information Request 1(xiv) The advantages of concentration wastewater treatment facilities where existing wastewater treatment facilities exist in close proximity to industrially designated lands
- 3.14.1. In response to this issue it is stated that at the time of undertaking the site selection process Irish Water were not aware that the IDA were planning to upgrade the wastewater treatment plant on the IDA lands. Notwithstanding the upgrade of the IDA wastewater treatment infrastructure, the IDA site offers further opportunities for the expansion of commercial enterprises on the site. A large wastewater treatment plant would compromise the viability of the commercial expansion of this enterprise. It is also noted that there are 10 residential dwellings the closest of which is 120

metres from the site within the IDA lands. In the event that Irish Water developed a wastewater treatment plant at the IDA site, a larger land take would be required as the IDA wastewater treatment plant would continue to operate independently until the complete and transfer of IDA flows to the urban wastewater treatment plant serving the entire agglomeration.

3.15. Further Information Request 1(xv) – Scoring criteria for disturbance of Main Street

3.15.1. As Network 1 remains structurally intact and in good condition the utilisation of Site No. 3 will be infinitely more preferable in terms of disturbance and disruption along Main Street. The waiting scores assigned to each of the sites is therefore justified in the original exercise.

3.16. Further Information Request 1(xvi) – Availability of electricity supply

3.16.1. The original assumption that the electricity supply was available to the IDA lands was incorrect. Subsequent investigations confirmed that there is no electricity supply available to the IDA site. Therefore, the score for Site 1 has been adjusted from 1 to 3.

3.17. Further Information Request 1(xvii) – Construction costs associated with the outfall

3.17.1. It is noted that the existing Irish Water outfall at Network 1 is reusable with only maintenance repairs required at the outfall end of the pipeline. The IDA outfall is not suitable for serving the entire agglomeration of Roundstone due to its limited capacity and length. The cost of upgrading the outfall at Site 1 is estimated to be €88,000 while the cost of upgrading the outfall at the preferred Option (3) is estimated to be €39,000. Utilising the existing outfall is also more beneficial in removing Roundstone from the list of untreated agglomerations in the shortest possible time. It is noted that the reusability of the existing IDA pumping station would not be suitable for the entire agglomeration of Roundstone.

3.18. Further Information Request 1(xviii) – Construction and excavation costs for Site 3 versus Site 1

3.18.1. The suggestion that the IDA site is level is contradicted by the spot levels and contours provided within the planning drawings submitted with the IDA planning application which shows that spot levels on the IDA site range from 6.4 metres AOD to 2 metres AOD.

3.19. Further Information Request 1(xix) – Scores assigned to Site 1 versus Site 3 in terms of construction costs

3.19.1. The requirement for an additional low lift pumping station to serve Site 1 would add an estimated €81,147 to the cost of providing a wastewater treatment plant at this location. Also a new long sea outfall of over 100 metres in length would result in the cost of approximately €128,880. Furthermore, the cost of pumping effluent from the terminal pumping station, a distance of 1,086 metres compared with pumping effluent a distance of 456 metres would add an additional €90,000 to construction costs. As a result it is considered that Site 3 achieves a more favourable score. Revised cost estimates in light of subsequent information derived after the initial site selection report is contained in Appendix A of the submission.

3.20. Further Information Request 1(xx) – Operational costs Site 1 versus Site 3

3.20.1. It is stated that the main influence and operational costs are the energy requirements associated with the proposed pumps. As more detail is now available a review of the costs estimates were undertaken. The revised cost options over a 30 year period for Option 1 is estimated at €5.348 million whereas Option 3 is €5.332 million.

3.21. Concluding Comments

- 3.21.1. Irish Water state that backfilling a wastewater treatment plant into the existing village will temporarily inconvenience residents irrespective of whether a wastewater treatment plant is located to the north or south of the village.
- 3.21.2. On the basis of the information provided during the proceedings of the oral hearing and the further information that has come to light subsequent to the oral hearing a site selection scoring matrix has been updated and this is set out in Table 3.1 of the response. Both sites (Site 1 and Site 3) score 195 points hence neither are considered to be demonstrably preferable.

- 3.21.3. However, based on Irish Water's current site selection criteria where Irish Water projects are on the basis of qualitative rationale rather than quantitative rationale Irish Water consider Site No. 3 to be demonstrably preferable on the basis that:
 - Site 3 facilitates the sustainable reuse of the existing Irish Water outfall.
 - Site 3 will avoid significant disturbances along Main Street during the construction period.
 - The existing sewer Network 1 will discharge to the north of the village and therefore has better connectivity with the preferred site.
 - The risk of encountering archaeology in Site No. 3 is less than that of Site No.
 1.
 - The IDA are not agreeable to Irish Water locating a wastewater treatment plant on their lands at Roundstone.

3.22. Comments by Objectors in respect of Additional Information Submitted

3.22.1. A response from Anne King

A response was submitted by Joanne King on behalf of Anne King, objector on 26th November, 2021. It comprises of a number of email attachments and downloads. The appeal also is a request for an appeal against Galway County Council's grant of planning permission under Reg. Ref. 19/1902 as it is argued that although the grant of planning permission is passed four weeks the grant is contrary to planning law and EU law and has a direct bearing on the submitted documents within Irish Water's further information response. The submission comprises of a number of attachments which are set out below.

Details of the outline specification for the application for the IDA development of lands at Roundstone dated 12th June, 1979.

The pricing document for the IDA Business and Technology Park at Roundstone prepared by Jenning O'Donovan Partners dated January, 2021.

Annotated comments suggesting that Irish Water have failed to insufficiently address the response to further information submitted.

Details of tender documents for the IDA Business and Technology Park at Roundstone.

- Details of the EU Terms and Definitions of the Urban Wastewater Treatment Directive (91/271/EEC).
- 3.22.2. The Board will note that where appropriate the annotated comments submitted on behalf of Mrs. King on the Irish Water response to additional information will be referred to where relevant in my assessment below.

3.23. Further Submission on behalf of Noel Coyne

3.23.1. A further submission was received on behalf of Mr. Coyne from Joseph Joyce. It is summarised below.

It is stated that the interests of Mr. Noel Coyne has been marginalised in this process. It is stated that Mr. Coyne is at a gross disadvantage in that Irish Water have utterly failed to discharge his expenses to date. This is a deliberate to attempt to deprive Mr. Coyne of access to expertise, professional advice, engineering advice and environmental advice which is necessary to counter the application from Irish Water.

It is argued that a number of figures contained in the submission in relation to Monaghan's Field are erroneous and outdated. They do not show the housing development adjacent and it is argued that the proposed development is simply too close to existing residential dwellings.

There is an admission by Irish Water that there will be odour emitting sources installed on site. This opens the door for future litigation and shows that the wastewater treatment plant/sewage system is utterly unsuitable at this location. The provision of a roadway results in the destruction of natural habitat and will result in a visual eyesore. It will also involve extensive excavation and dynamiting in order to provide adequate access.

The attempted uses of existing pipework is inappropriate and suggests a job being done on the cheap. The majority of the waste will be gathered and collected at the pumping station on Mr. Coyne's lands. It being the most populated part of Roundstone Village. Discharging the effluent further up the bay could result in wastewater being pushed up the river which feed the Ballinahinch Fisheries and could contaminate the very harbour itself.

Mr. Coyne has not been afforded the funds to challenge the various technical issues presented and as such remains prejudiced. It is outrageous to think that public funds will now be dispensed to construct two wastewater treatment plants in the village of Roundstone.

It is unbelievable to think that Irish Water and Mott McDonald utterly ignored the presence of an existing but decommissioned wastewater treatment plant and should have been aware of the IDA's decision to replace the existing wastewater infrastructure serving the industrial park. Surely an expansion of a treatment plant which has an existing permission should be considered as a viable option. A proposed pumping station on the site of Mr. Coyne's lands will in itself become an eyesore, will interfere with the visual amenity of the area and the adjacent harbour. Any default in the workings of the pumping station could have significant impacts in polluting dwellings in the area and the adjacent harbour. Irish Water should favour a location that is farthest from the nearest residential dwelling such as the IDA site. Mr. Coyne's lands remain absolutely suitable for the development of housing within the confines of the village of Roundstone. A joint venture of a wastewater treatment plant between the IDA and Irish Water should be progressed which would clearly have the support of the local community. It is suggested that any works along the main street to facilitate a new sewage network could be undertaken during the tourist off season when road usage and vehicular traffic is at a minimum.

By way of conclusion it is stated that the introduction of a pumping station on Mr. Coyne's land would destroy the value of his property. Positioning a sewage pumping station at this location in the town adjacent to a nearby harbour and school is preposterous. It is outrageous to think that public funds would be wasted on both a wastewater treatment plant for the IDA and Irish Water to serve the existing agglomeration. Finally, the submission goes on to suggest that there has been a lack of public consultation on Irish Water's behalf.

Finally, it is stated that Mr. Coyne supports the protection of Roundstone Bay. It is therefore a common sense solution that the proposed wastewater treatment plant should be situated on the IDA lands or sites adjacent which would allow the distribution of appropriately treated wastewater in the deep part of Galway Bay outside the sensitive Roundstone Bay itself protecting the interests and sensitivity of

Roundstone Bay and the Ballinahinch River which is a very important tourist amenity and world famous for fishing.

4.0 Assessment of Further Information Submission

4.1. Further Information Request 1(i) – Visual Impact

- 4.1.1. The further information response acknowledges that the preferred site is located on elevated lands on the approach road into the village of Roundstone. It is acknowledged that this elevated site provides greater challenges to screening. However, this challenge is not insurmountable. It is stated that the structures to be located on the subject site are relatively low and can be adequately screened.
- The further information submitted does little to allay my concerns in relation to the 4.1.2. visual impact arising from the proposed development. While the structures associated with the wastewater treatment plant themselves may benefit from additional landscaping and screening the fact remains that a new internal road serving the wastewater treatment plant will have a significant visual impact. Furthermore, I would take issue with the scoring assigned to the IDA site which was assigned a score of 3. It is my considered opinion that the location of a wastewater treatment plant on IDA land would not be visually discernible from any public vantage points outside the IDA Park. The site is tucked away behind the IDA Park and is surrounded by large stone walls. The site would not at all be visible from the public road network within the agglomeration and for this reason I consider that a score of 1 would be more appropriately attributed to this site as opposed to 3 assigned by Irish Water in the site selection assessment. Notwithstanding the information submitted I would still express concerns that Site No. 3 is considerably more exposed and more inappropriate in visual terms than Site No. 1.

4.2. Further Information Request 1(ii) – Proximity to sensitive receptors

4.2.1. Again the response to the future information request by Irish Water. It is stated that Irish Water have based separation distance between wastewater treatment plants and sensitive receptors on EPA Guidelines which required a cordon sanitaire of 50 metres around the wastewater treatment plant. Irish Water note that there were no further assessment of distances from the proposed wastewater treatment plant beyond the 50 metre buffer. The further information submitted notes that the

preferred option is c.84 metres from the nearest residential property boundary and therefore complies with the buffer zone set out in the EPA Guidelines. It is my considered opinion that the IDA site which at its closest point would be approximately 120 metres from the nearest building and c.180 metres from the nearest residential property would offer a more preferable buffer zone and this again should be reflected in the waiting. Furthermore, the Board should note that the IDA lands are likely to accommodate further industrial/enterprise development as opposed to residential development. It is unlikely therefore that locating the wastewater treatment plant on the IDA lands will inhibit future residential development in the Roundstone area. On the basis of the above I would consider the IDA site to be more preferable in terms of the separate distance between the proposed wastewater treatment plant and sensitive receptors. It is my view that any site suitability assessment should reflect a sliding scale in terms of score to reflect distances between wastewater treatment plant and surrounding residential development as opposed to providing a blanket score for all sites that are located beyond the 50 metre buffer zone.

4.3. Further Information Request 1(iii) - Construction of the access road

- 4.3.1. It is stated based on the methodology employed by Irish Water (which is predicated on the absence of detailed geotechnical investigations).
- 4.3.2. It was considered that Site No. 3 (preferred option) was found to have the lowest estimated total construction costs compared to other site options. However, further information has come to light following the finalisation of the site selection report and it is considered that the preferred site (Site No. 3) marginally exceeds the cost of Site No. 1 in terms of road construction €125,940 (Site No. 1) versus €128,564 (Site No. 3).
- 4.3.3. Again, arising from my observations during my most recent site inspection I find these figures somewhat difficult to believe on the basis that the access road to the preferred site is estimated to be in the order of 200 metres in length whereas the access road to the IDA site is 180 metres in length. Perhaps more importantly there is an existing access track, including the provision of hardcore foundations already existing to the IDA site (see photographs attached). Whereas the proposed access to the preferred site comprises of undulating bogland and rock outcrop which in my

- view would be considerably more challenging in terms of excavating an access road to serve the wastewater treatment plant.
- 4.3.4. Notwithstanding the argument above the Board are nevertheless requested to note that Irish Water acknowledge that the construction of an access road to the IDA site is most likely to be cheaper than constructing an access road to the preferred site.

4.4. Further Information Request 1(iv) – Structural integrity of the sea outfall serving Network No. 1

4.4.1. Further information submitted by Irish Water indicate that the damaged Outfall 1 occurs at the end of the sea outfall only. The remainder of the outfall pipe remains intact therefore it is not foreseen that there will be a need for the entire outfall to be replaced. My concerns in the original report submitted to the Board express concerns based on the information submitted, at the time of writing the report that this outfall would have to be replaced in its entirety. It appears based on the additional information that this is not the case. It is acknowledged that this would strengthen the case for utilising the existing outfall connected to Network No. 1.

4.5. Further Information Request 1(v) – CCTV survey of Network 1

- 4.5.1. Further details of the Roundstone network CCTV report carried out in 2018 provide further details of the structural integrity of the existing network along Main Street (Network No. 1). It confirms that the network is entirely fit for continued use and therefore major disruption is not anticipated along Main Street south of the terminal pumping station.
- 4.5.2. Having inspected the CCTV survey submitted it appears that the network is of sufficient structural integrity to ensure that largescale maintenance or rehabilitation works would not be necessary.
- 4.5.3. It is acknowledged therefore that the preferred option (Option No. 3) would have a significant and inherent advantage in utilising the gravity main on Main Street to the terminal pumping station. Provision of a new rising main along Main Street therefore would involve significant disruption along the street during the course of the construction period. Notwithstanding this the Board will acknowledge that any such disruption would be temporary and limited to the construction period only. This is a relatively short period in the context of the overall operational timeframe which is anticipated to be at least 30 years.

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- 4.6. Further Information Request 1(vi) Hydraulic loadings required to be pumped along the sewer network
- 4.6.1. Irish Water submitted further information with regard to the relative costs of pumping hydraulic loads along the network and over the various static head differentials between the preferred site and the IDA site. In comparison of both, it is noted that Site 3 (preferred site) provides a more economical duty head of 44.4 metres when compared to Site 1 duty head which is 47.7 metres. The Irish Water submission acknowledges that the duty head are very similar in both options and for the purposes of the cost estimate comparison (provided in Appendix A of the submission using the same pump size (2 x 18 kilowatts pumps) yielded a neutral comparison in terms of operational costs associated with pumping station operation). It appears therefore that in terms of operational costs the difference is insignificant with the preferred site being marginally advantageous due to the lower duty head.
- 4.7. Further Information Request 1(vii) Further details in relation to static head differential and operational costs of pumping effluent
- 4.7.1. Again, Irish Water make reference to the energy requirements of pumping effluent to a wastewater treatment plant located to the north of the agglomeration (preferred site) or to the south of the agglomeration (IDA site). Again, it is noted that the energy cost requirements for both options are similar with the preferred site being marginally lower due to the lower duty head.
- 4.7.2. Arising from the additional information submitted it appears that the preferred site is slightly more advantageous in terms of operational costs. The Board can therefore be satisfied that in terms of operational costs the preferred site is slightly more desirable or suitable.
- 4.8. Further Information Request 1(viii) The possibility of serving a wastewater treatment plant to the south of the agglomeration with gravity sewers only
- 4.8.1. The Irish Water response states that due to a low point (c.3.5 metres AOD) in the natural topography (see Appendix C of submission) any gravity mains towards the south would require an additional low lift pumping station to convey the full design flow of 7.8 litres per second to either Sites 1 or 2. This would increase operational costs.

- 4.8.2. Having further inspected the site I note that the topography generally falls from the high point in the main street towards the IDA site. I fully acknowledge that Irish Water have undertaken detailed topographic surveys in respect of the lands to the south of the Main Street which show some undulations in ground levels. However, these undulations are relatively minor and relate to the lands to the immediate south of the IDA site. While it may be necessary to install a low lift pump at this location the distance for the effluent to be pumped would be relatively short at c.150 metres.
- 4.8.3. It may even be possible to excavate deeper into the ground in order to lay a gravity main along this section of the route. However, I fully acknowledge that this is an engineering consideration that would require further detailed investigations before any concrete conclusion could be made.
- 4.8.4. The conclusion remains based on the further information submitted with the application that in terms of operational costs the preferred site offers a slight advantage over the IDA site in terms of pumping and energy requirements.
- 4.9. Further Information Request 1(ix) Pumping requirements on Networks 2 and 3
- 4.9.1. The Board in the additional information request noted the fact that in the case of the IDA site only a portion of the entire network (Network No. 1) would be required to be pumped southwards along Main Street as Networks 2 and 3 could be conveyed by a gravity to a new wastewater treatment plant to the south of the agglomeration.
- 4.9.2. Irish Water point out that while Networks 2 and 3 could flow along a portion of the network in a southward direction via gravity the low point in the natural topography along the alignment to Route 1 would require a low lift pumping station to transfer the entire flows to the wastewater treatment plant and this would result in four pumping stations instead of 3 of the preferred option. Again, I refer to the point that it is acknowledged that the preferred site provides a slightly advantageous option in terms of pumping and energy requirements under the operational phase to the IDA site.
- 4.10. Further Information Request 1(x) Extant grant of planning permission for wastewater treatment plant under Reg. Ref. 19/1902
- 4.10.1. Irish Water state that they were not aware of the planning application in question at the time of producing the site selection report. It is also stated that the IDA's long

- term development strategy for their limited landbank at Roundstone is to maximise its economic potential by reducing non-economic generating development within its landholding.
- 4.10.2. I note the email correspondence between Irish Water and the IDA with regard to colocating/replacing the IDA wastewater treatment plant with a municipal wastewater treatment plant for the agglomeration. While the IDA are clear and unambiguous in stating that it wishes to maximise the IDA's limited landbank usage for commercial and industrial development I would note the following:
 - (a) The IDA have not categorically ruled out the possibility of locating a wastewater treatment plant on the subject site.
 - (b) There are lands further south of the IDA lands which may be suitable for a municipal wastewater treatment plant.
 - (c) There is a relatively large landbank within the IDA lands that remains undeveloped.
 - (d) The Board should take into consideration wider strategic land use considerations with regard to the siting of a wastewater treatment plant within the agglomeration as a whole. In this regard it is my considered opinion that a wastewater treatment plant is more compatibly located within industrial zoned lands in close proximity to existing industrial and commercial enterprise activities than locating in an area in proximity to residential development. Thus, while the IDA may seek to maximise the potential of the landbank for economic development this should not in itself preclude the provision of a wastewater treatment plant within the area particularly having regard to the existence of an existing, albeit smaller package treatment plant already in situ on the lands in question.
 - 4.11. Response to Further Information Request 1(xi) The preference for sites to be located at a low point in proximity to the existing network
- 4.11.1. The Board requested Irish Water to comment on the fact that its own technical requirements make reference to the preference where possible to choose sites located at a low point in proximity to the existing network in order to minimise pumping requirements and therefore sites below 40 metres AOD are considered to be more preferable. Again, Irish Water make reference to the point that Site No. 3

(preferred site) incorporate marginally lower operational costs than those associated with the IDA site to the south and this point is acknowledged and accepted.

4.12. Further Information Request 1(xii) – Archaeological constraints

- 4.12.1. Further information submitted by Irish Water considers that the IDA site is located in close proximity to a graveyard and a former monastic site whereas the preferred site is located c.125 metres north-west of a recorded monument (a corn drying kiln) and it is argued that this monument is not scheduled for inclusion in the next revision of the RMP. The points submitted by Irish Water are acknowledged.
- 4.12.2. However, I would point out that according to the maps provided by the National Monument Service the IDA site is located c.400 metres from the nearest recorded monument. Also, lands in the vicinity of Site No. 1 (IDA site) have been the subject of substantial disturbance during both the course of developing the IDA lands to the north of the site and developing the lands for the wastewater treatment plant. It is therefore more unlikely that archaeological features or remains will be discovered were Site No. 1 to be developed for a wastewater treatment plant. It is my considered opinion that any issues in relation to archaeological constraints are not insurmountable issues and could be adequately addressed by way of appropriate planning condition in the event that any future planning application is forthcoming on either site.

4.13. Further Information Request 1(xiii)

4.13.1. This item of additional information again related to the respective site's location in terms of its proximity to residential receptors. I reiterate the points already referred to in respect of further information Request 1(ii). It is my considered opinion that the waiting and scores assigned to a particular site in the context of sensitive receptors should be predicated on a sliding scale. That is to say that potential sites that are located further away from sensitive receptors should be seen as being more advantageous and therefore should be assigned a more beneficial score accordingly. It is not considered appropriate in my view that all sites should be assigned the same score irrespective of distance once they are located outside the 50 metre buffer zone as per the EPA Guidelines.

- 4.14. Further Information Request 1(xiv) The concentration of all wastewater treatment facilities at one location within the village
- 4.14.1. In response to this point I reiterate that the IDA seeks to maximise compatible commercial businesses within its landholdings.
- 4.14.2. These points are noted and acknowledged. However, for reasons stated above I do not consider that the aspirations of the IDA precludes consideration for locating a municipal wastewater treatment plant on the subject site.
 - 4.15. Further Information Request 1(xv) Disturbance on Main Street due to works to be carried out on Network 1
- 4.15.1. Irish Water have submitted details of the CCTV survey in respect of Network No. 1 which clearly indicates that the network is of sound structural integrity and will not require largescale works. On the basis that it is proposed to utilise this network as a gravity sewer under the preferred option I fully acknowledge that this provides significant advantageous over the requirement to provide a rising main along Main Street in order to facilitate flows to Site No. 1 (IDA site). I would however reiterate that any disturbance arising from construction would be a relatively short term impact having regard to the overall lifetime of the project which will span a 30 year horizon.

4.16. Further Information Request 1(xvi) – Electricity supply network

- 4.16.1. In response to this Irish Water state that the original site selection report assumed that Site No. 1 (IDA site) due to its use as a wastewater treatment facility would have an existing power supply. However, ESB drawings confirm that there is in fact no electrical connection at the existing IDA wastewater treatment facility.
- 4.16.2. While this point is accepted based on the evidence submitted, further clarity is required in my view as to how wastewater flows were previously conveyed to the wastewater treatment plant and are proposed to be conveyed to the wastewater treatment plant currently under construction having regard to the natural dip in topography between the buildings currently occupying the IDA site and the wastewater treatment plant which according to Irish Water require a low lift pump which would be required to convey flows to the wastewater treatment plant.

4.17. Further Information Request 1(xvii) – Outfall requirements

- 4.17.1. The Board requested Irish Water to comment on construction costs regarding the utilisation of the existing outfall serving Network No. 1 and the possibility of using the outfall associated with the existing wastewater treatment plant on IDA lands. Irish Water's response noted that the existing outfall at Network No. 1 is reusable as only maintenance repairs are required. Whereas the IDA outfall is not currently reusable for the purposes of serving the entire agglomeration of Roundstone due to its limited capacity and length. Further details in relation to this issue is contained in Appendix E of the response which assesses initial dilution modelling for both the Roundstone Wastewater Treatment Plant and the proposed IDA outfall. It notes that the two sides are relatively close and the tidal currents are likely to be similar although the existing licenced location is slightly further offshore. It concludes that the relatively low current speeds and shallow water at the discharge locations mean that the dispersion and plume of any discharge is buoyancy dependent. The existing Irish Water and IDA outfalls offer no dilutions at low water or spring tides. The existing Irish Water outfall provides better dilution than the IDA outfall at all other tidal states. Furthermore, the Irish Water's licensed discharge location (in the scenario where the outfall pipe is replaced and discharging at its licensed location) offers better dilution of the discharge at all stages of spring and neap tides than the IDA site.
- 4.17.2. Based on the preliminary dilution modelling undertaken therefore, I am satisfied that the existing, or rather repaired outfall serving Network 1 provides better dilution and discharge of treated wastewater than the existing outfall serving the IDA wastewater treatment plant. Notwithstanding this point the option is always available to extend the IDA outfall to ensure that appropriate dilution and dispersion of treated effluent takes place within the Bay. It stands to reason that the outfall location closer to the mouth of the Bay could offer better dilution and dispersion if extended than the more sheltered area north of the harbour.

4.18. Further Information Request 1(xviii) – Construction costs

4.18.1. The Board requested that Irish Water investigate the proposition that the preferred site may be more challenging in terms of construction and excavation. It is noted that the IDA site is level and will be the subject of construction and excavation works associated with the construction of a new wastewater treatment plant under Reg.

- Ref. 19/1902. A synergising of both projects could be beneficial in terms of construction works. In response Irish Water note that the IDA site is not level and spot levels and contours show that the IDA site falls from the spot level of 6.4 metres to the north-west to 2 metres to the south-east.
- 4.18.2. It is acknowledged that the IDA site incorporates changes in ground levels. However, these changes in ground levels are considerably more modest than the preferred site. While a ground level differential of 4.4 metres is encountered in the IDA site a ground level differential of 20 metres (8 metres AOD at road level) compared to 28 metres AOD at the centre of the preferred site is noted. It is therefore my considered opinion that construction costs associated with the preferred site may be much more challenging than that associated with the IDA site. Furthermore, the IDA site is in the process of being developed for the new wastewater treatment plant to serve the IDA lands granted by Galway County Council under Reg. Ref. 19/1902. It is apparent that Irish Water could avail of the existing infrastructure and works carried out as part of the construction programme for the IDA wastewater treatment plant which would not be available were works to be undertaken on the virgin lands associated with the preferred site.

4.19. Further Information Request 1(xix)

4.19.1. The Board noted in relation to construction costs that the preferred site was awarded a preferable score of 15 compared to the IDA site which was awarded a score of 45. The applicant was requested to justify this apparent anomaly. In response Irish Water made reference to the requirement for an additional low lift pumping station in order to transport and convey effluent from within the IDA grounds to the wastewater treatment site. Furthermore, it is reiterated that the IDA's existing effluent sea outfall was not fit for purpose to accommodate the effluent from the entire agglomeration resulting in the need for a new long sea outfall of approximately 100 metres. These together with other variables described elsewhere in the submission were carefully considered using Irish Water's project costing template for all site options. It was on this basis that Site No. 3 achieved a more favourable score. This point has been noted. However, I would refer the Board to the cost estimation provided for Sites 1 and 3 in Appendix A. It is noted that the total contract and operational costs for Option 1 amounts to €5,348,675 whereas the total costs for Option 3 amounts to €5,332,673. The difference between the two is negligible at less than -0.3%. Such a

small differential in price would not in my considered opinion justify awarding Site No. 3 (the preferred site) a more preferable score of 15 compared to a score of 45 for the IDA site.

4.20. Further Information Request 1(xx) – Scores assigned to the various costings of Sites 1 and 3 and explanation of costs

4.20.1. In response Irish Water provide a more detailed costing which is set out in Appendix A. As already stated above detailed costings for both sites are set out in Appendix A and the difference between both is negligible. I note however Irish Water's response in relation to final issue which states that "the pump sizes were reviewed and assessed in relation to the required duty head, which is similar for both options. Due to the similarity in duty head the same pumps can be used for both options which results in similar operational costs for both options. This would again confirm my overall conclusion that the costs between the preferred option and the IDA site are for all intents and purposes the same and that neither site has inherent or material advantages with regard to cost.

4.21. Overall Conclusions in Respect of Additional Information Submission

- 4.21.1. Having assessed the additional information submitted by Irish Water and the comments submitted by the objectors in respect of same I would conclude that my concerns in respect of the compulsory acquisition of lands for the preferred site (Site No. 3) have only been partially allayed from the additional information submitted. The Board's additional information request primarily related to further information on engineering and cost considerations. On the basis of the Board's additional information request and the response by Irish Water I would conclude the following:
 - There is very little, indeed negligible differences in terms of contract costs and operational costs between Options 1 and 3.
 - It is acknowledged from the additional information that a location of a
 wastewater treatment plant to the south of the agglomeration such as the IDA
 land may not have the added benefit of allowing all effluent to flow by gravity
 to a site located in the southern part of the Roundstone agglomeration. A low
 lift pumping station would be required to lift effluent from the topographic low
 point within IDA lands to any wastewater treatment plant located to the south

- of the IDA lands. Although the distance and static had differential in the case of any pumping station would be quite modest.
- I also acknowledge that the CCTV footage submitted with the additional information indicates that the sewerage pipe infrastructure associated with Network No. 1 appears to be of adequate structural integrity to convey flows along the Main Street without significant upgrading needed. This has added advantage to the preferred option as it would allow sewage within the agglomeration to be conveyed northward along the Main Street via a gravity flow. This in turn would obviate the need for largescale disruption through pipe laying along the Main Street.
- It also appears from the further information submitted that the existing outfall serving the IDA site may in its current form be inadequate to cater for flows associated with the agglomeration as a whole. The information further suggests that the outfall of the IDA wastewater treatment plant is not appropriately located to adequately disperse and dilute effluent into the channel and therefore a new outfall would be required to be constructed.
- It is also noted that only the end section of the outfall currently serving
 Network 1 is required to be replaced.
- I note the comments of the IDA that it seeks to maximise the lands under its ownership for further economic enterprise as opposed to facilitating wastewater treatment infrastructure and this in my view is also a pertinent consideration in considering alternative sites. Notwithstanding the above I further note while this may be the IDA's preferred option it does not categorically rule out locating a wastewater treatment plant on the lands in question. Furthermore, other options for Irish Water to compulsory acquire lands for a wastewater treatment plant in the vicinity of IDA lands may also be a viable option.
- 4.21.2. Therefore, on foot of the additional information submitted by Irish Water I would revise my overall conclusions which originally questioned the overall suitability of Site 3 to accommodate a wastewater treatment plant. It appears from the additional information submitted that in overall engineering terms including construction costs

- and operational costs that Option 3 (preferred site) and Option 1 (IDA site) are similar in terms of the over costs and benefits derived.
- 4.21.3. However, in overall land use planning terms I would still consider the location of a wastewater treatment plant within or adjacent to IDA lands to the south of the agglomeration to be preferential to locating a wastewater treatment plant at Site 3. This conclusion is primarily based on views expressed in my original report which include the following:
 - The proposed site for the wastewater treatment plant are located on elevated and exposed lands on the entry point into Roundstone in proximity to the R341 which forms part of the Wild Atlantic Way. The IDA lands on the other hand are completely secluded and not at all visible from any public vantage points along the road network within the village and are therefore considerably more advantageous in terms of visual amenity.
 - I further consider that the preferred site is located in closer proximity to
 residential receptors and therefore has a higher potential to impact on
 adjoining residential amenity than the alternative site in IDA lands.
 Furthermore, I consider commercial and industrial uses associated with the
 IDA lands would be a more compatible use in proximity to a wastewater
 treatment plant than the undeveloped scrublands to the north of the
 agglomeration.
 - I also consider that there are advantages in synergising the development of a
 new wastewater treatment plant with an existing private plant which currently
 serves the IDA lands. This would include the utilisation of the existing road
 running through the IDA lands and the access track which is already in place
 to serve the current upgrade of the wastewater treatment plant on the IDA
 lands which is under construction.
- 4.21.4. All the above land use planning considerations would lead me to conclude that on balance the IDA site are lands adjacent to the IDA site may prove to be more appropriate to accommodate a municipal wastewater treatment plant to serve the agglomeration as a whole.
- 4.21.5. On a final point I note that the Board did not specifically ask for a further evaluation of the pumping stations sites and in particular the basis for the site selection of Site

D for pumping station no. 3. As outlined in my original report I would have significant concerns that the site selection report failed to consider wider land use planning criteria in assessing the suitability of this site. As mentioned in my previous report this site is surrounded by public roads and on two sides by housing. It is located in close proximity to the Main Street and offers an excellent opportunity to create appropriately scaled infill development which would help consolidate the village in urban design terms and would fulfil the objectives of both the Galway County Development Plan and the National Planning Framework in achieving more compact development within existing urban areas rather than expanding out into greenfield sites in the periphery of towns and villages. I consider the provision of a pumping station on such a prime centrally located site will result in a considerable land take of this infill site and will result in a cordon sanitaire of at least 15 metres in every direction around the pumping station in order to protect surrounding residential amenity. I consider the location of a pumping station on this site will significantly restrict development opportunities on such a key development site within the village. I therefore consider that the objections of Mr. Noel Coyne in this regard are relevant and reasonable. While it may not be within the Board's remit to maintain or enhance the value of private individual landholdings in determining whether or not the compulsory acquisition of lands should proceed, there are in my opinion wider important strategic land use considerations in terms of assessing the compulsory acquisition of lands in the context of the proper planning and sustainable development of the area. The lands in question represent a significant opportunity to develop and infill site within an picturesque village which could significantly enhance the visual amenities of the village in urban design terms as well as contribute to overarching objectives set out in both the development plan and the National Planning Framework in utilising existing infrastructure within towns and villages and achieving more compact development.

4.21.6. On the basis of my assessment above therefore I recommend that the Board should annual the Compulsory Purchase Order before it for the same reasons and considerations set out in my original report.

Paul Caprani, Senior Planning Inspector.

31st January, 2022.