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INTRODUCTION

- 3.1 This Environmental Impact Assessment (EIA) Report provides supporting information to accompany a Waste Licence Review Application (WLA), to the Environmental Protection Agency (EPA), by Roadstone Limited in respect of a proposal to extend the existing licensed site area at its Huntstown soil recovery facility, to facilitate the importation and recovery of inert soil and stone waste to backfill land restore the South Quarry at a rate of 750,000 tonnes per annum.
- 3.2 At the present time, backfilling of the North Quarry at Huntstown is progressing at the rate of 1,500,000 tonnes per annum in line with the existing planning permission (Planning Ref. FW16A/0012) and current EPA waste licence (Ref. W0277-03). At current rates of backfilling and recovery, it is anticipated that the North Quarry will be substantially backfilled by the end of December 2022 and that final restoration works (levelling, contouring and seeding) will commence shortly thereafter.
- 3.3 In view of the ongoing demand for soil waste recovery capacity at Huntstown and the imminent cessation of rock extraction activities at the South Quarry, Roadstone is currently planning to commence restoration, backfilling and soil recovery activities on the western side of the South Quarry (albeit at a lower intake rate of 750,000 tonnes / annum) in January 2023, following cessation of waste recovery activities at the North Quarry.
- 3.4 Backfilling and recovery activity at the South Quarry already has the benefit of planning permission and no new infrastructure is required to facilitate transfer and re-location of established soil waste recovery operations to the western side of the South Quarry or the extension of the licensed site area to include this area.
- 3.5 It is envisaged that all pre-existing of site infrastructure including weighbridges, wheelwash facility, site offices, welfare facilities, quarantine shed, and workshop / maintenance shed will remain in service as quarry backfilling and recovery activities at Huntstown are re-oriented toward the South Quarry. The only notable change arising will be the re-routing of HGV lorries and articulated trucks across other pre-existing haul roads through the Quarry complex.
- 3.6 Further detail in respect of the proposed backfilling and recovery activities at Huntstown South Quarry are provided in Chapter 2 of this EIA Report.
- 3.7 The following sections of this Chapter reprise and update the need to provide for continued backfilling and soil waste recovery activities at Huntstown and possible alternatives thereto.

Scope of Work / EIA Scoping

- 3.8 In relation to consideration of alternatives, the DoHPLG (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment state:

“4.12 The Directive requires that information provided by the developer in an EIAR shall include a description of the reasonable alternatives studied by the developer. These are reasonable alternatives which are relevant to the project and its specific characteristics. The developer must include the main reasons for the option chosen taking into account the effects of the project on the environment.

4.13 Reasonable alternatives may relate to matters such as project design, technology, location, size and scale. The type of alternatives will depend on the nature of the project proposed and the characteristics of the receiving environment. For example, some projects may be site specific so consideration of alternatives may not be relevant.”

Contributors / Author(s)

- 3.9 This Chapter of the EIAR was prepared by Derek Luby (BE MSc. DIC MIEI), a civil engineer and Technical Director with SLR Consulting Ireland. Derek is a technical, planning and environmental advisor on minerals and waste development. He has previously been responsible for the scoping, preparation and submission of numerous EIA Reports for development of inert waste facilities.

Difficulties Encountered

- 3.10 No limitation or difficulties were encountered in the preparation of this Chapter of the EIAR.

NEED FOR THE DEVELOPMENT

- 3.11 The South Quarry at Huntstown has previously been identified as a suitable receptor site for excess soil and stone generated by construction activity across the Greater Dublin Area, and planning permission has been in place in one form or another for the backfilling of this quarry to former ground level since 2004.
- 3.12 The most recent planning permission in respect of extraction activity at the Huntstown Quarry Complex (Fingal Planning Ref. No FW12A/0022 and An Bord Pleanála Ref. No. 06F.241693) included provision for all quarries to be backfilled to surrounding ground level using imported soil and stone and restored to grassland and possible agricultural / grazing use. The permitted soil intake rate to all quarries under that particular planning permission was limited to 750,000 tonnes per annum.
- 3.13 An application for a waste licence providing for the backfilling of the North Quarry at Huntstown at a rate of up to 750,000 tonnes per annum was issued by the Environmental Protection (EPA) in February 2015 (Ref. No. W0277-01). Backfilling and recovery commenced at the North Quarry in line with conditions attaching to the 2014 planning permission and the EPA waste licence some months later, in October 2015, after extraction activities at the quarry had been largely wound down, the required infrastructure installed, and necessary environmental monitoring and waste management systems established.
- 3.14 Within a short time period however, it became apparent to Roadstone that the demand for soil waste intake / recovery capacity was significantly in excess of that permitted under the 2014 planning permission and accordingly in August 2016, it sought permission to increase the rate of soil waste intake at both the North Quarry and West Quarry at Huntstown from 750,000 tonnes per annum to 1,500,000 tonnes per annum. Permission was duly granted by Fingal County Council in November 2016 (Planning Ref. No FW16A/0120). An amended waste licence providing for a commensurate increase in soil waste intake was issued by the EPA in September 2017 (Ref. No. W0277-02).
- 3.15 Given its proximity to, and ease of access from, the M50 Motorway and the N2 Dual Carriageway and the wider national road network, Huntstown South Quarry is particularly well located to provide additional / future soil waste recovery capacity across the Greater Dublin Area and the wider Eastern Midlands Waste Management Region. The need for such capacity is evidenced by the continued, sustained high level of demand for soil intake capacity at Huntstown North Quarry from hauliers, contractors and developers since backfilling and recovery activities commenced there under licence back in October 2015.
- 3.16 In each year since 2016, Roadstone has had to restrict / allocate available soil waste intake capacity at its existing facility at Huntstown North Quarry among its customer base. The facility has also been unable to operate on a 12-month year-round basis as the permitted annual intake capacity has been reached weeks, and in some cases months, before the end of the calendar year and recovery activities have had to be suspended until the start of the following year, including in 2020, where no

fall-off in waste intake levels was reported, notwithstanding the reduction in the level of construction activity necessitated by restrictions imposed in response to the Covid-19 pandemic.

- 3.17 In light of the existing high level of demand for soil waste recovery capacity at Huntstown, and in order to provide some continuity and market certainty in future years, it is considered that the restoration of the South Quarry by backfilling with imported soil and stone waste should (subject to approval of the waste licence review application) commence on cessation of the backfilling activities at Huntstown North Quarry, projected to be sometime early in 2023 and albeit at a reduced intake rate of 750,000 tonnes per annum.

Policy Background

- 3.18 The opportunity to use inert soil and stone to operate a soil recovery facility and achieve a beneficial outcome in the process, arises due to the volume of such materials being generated by the increase in the level of construction activity across the Greater Dublin Area in recent years. The increased level of construction activity has generated sustained high demand for outlets which can accept inert soil and stone waste for beneficial use and/or for recovery purposes and thereby avoid having to dispose of it at lined landfill facilities.
- 3.19 Recognising these trends, the current Eastern and Midlands Region Waste Management Plan (EMRWMP) 2015-2020 states (in Section 11.2.2) that *'given the sharp decrease in the number of operational landfills nationally, which have been a significant outlet for C&D waste in the past, alternative recovery options will be required to facilitate the recovery of C&D waste arising in future years'*. The plan is however silent about who specifically should be responsible for providing alternative waste outlets / capacity or where these recovery facilities should be located.
- 3.20 The EMRWMP highlights that a number of pre-existing or previously authorised C&D waste recovery facilities, would if re-assessed today, be considered unsuitable for backfilling / infilling activities. Section 11.2.2 of the plan states that *'Many sites selected for infill facilities are considered marginal agricultural land, and may include wetland habitats or lands subject to flooding. There is an increasing recognition of the potential ecological and biodiversity value of these wetland sites. There is also a sense that at many of these sites, the deposition of waste material rather than improvement or development of the land was the primary purpose of the activity.'*
- 3.21 The EMRWMP proceeds to address future waste management requirements for C&D waste and highlights the suitability of former extraction sites for C&D waste recovery activities, noting specifically that *'Quarries also frequently require large quantities of soil material to fill voids, and for other remediation and landscaping applications.'*
- 3.22 The recently published national waste plan *'A Waste Action Plan for a Circular Economy'*¹ references (in Chapter 11) the major construction projects envisaged under Project Ireland 2040, the huge potential they provide in terms of the prevention and recycling of construction and demolition waste and the challenge in ensuring there is capacity to manage the waste generated. The policy document specifically states that *'it is vital that there is sufficient capacity for the recovery and/or disposal of the envisaged increased construction and demolition waste'*.

¹ A Waste Action Plan for a Circular Economy, Department of Environment, Climate and Communications, September 2020, Dublin

Available / Future Soil Intake Capacity

- 3.23 A recently updated report on national soil and stone recovery / disposal capacity published by the Regional Waste Management Planning Offices² indicated that, in the most recent year for which data is available (2018), the total licensed soil waste recovery capacity which was active and available within the Eastern Midlands was 2,411,000 tonnes / annum (across counties Fingal, Meath, Kildare and Wicklow). Of this just over 60% (1,500,000 tonnes / annum) was provided at one licensed soil facility, that at Huntstown North Quarry.
- 3.24 Of the licensed facilities identified in Table A-1 of Appendix A of the updated report and the information provided therein, Roadstone makes the following observations:
- one licenced facility which is currently active (in Kildare) will have no additional intake capacity (equivalent to 344,000 tonnes per annum) and will cease operations after 2022;
 - one facility, in North Dublin / Fingal, which has yet to secure an EPA waste licence has a projected annual intake capacity of up to 532,000 tonnes per annum, but given the limited overall scale of the facility will cease operations after just 2½ years, projected at some time around 2023 / 2024;
 - another facility in Kildare which has yet to secure an EPA waste licence has a projected annual intake capacity of up to 440,000 tonnes per annum, but has a limited lifespan (3 years) and its licence application is currently stalled while planning related issues are addressed / resolved;
 - although the table correctly indicates an annual waste intake of 1,500,000 tonnes to Huntstown North Quarry under the current waste licence, it incorrectly identifies the closure year as 2051 rather than 2022 (as is currently projected by Roadstone);
 - although 5 No. other smaller scale facilities licensed by the EPA, with an annual combined soil waste intake of 1,440,000 tonnes per annum, commenced soil waste intake / operations after 2018, there continued to be a sustained high level of demand for soil waste recovery capacity at the Huntstown North Quarry throughout 2019 and 2020. It is noted that the demand for soil recovery capacity at the facility remained strong in 2020 and 2021, notwithstanding the fact that there was a reduction in the level of construction activity as a result of Covid-19 restrictions. As of the time of writing (November 2021), soil waste intake to the facility is minimal as the facility effectively reached its permitted annual intake limit of 1,500,000 tonnes toward the end of October 2021;
 - the data presented in the updated report suggests that the additional soil waste capacity which came on stream at new facilities in recent years has most likely just managed to keep abreast of the growth in demand from increased levels of construction activity and the displacement of soil waste intake from other facilities (most notably the inert landfill facility at Tara Mines which required significant soil intake over 2017 and 2018 to raise the level of earth embankments and provide increased storage capacity for mine waste tailings); and
 - many of the newly licensed facilities, if operated at maximum soil waste intake capacity would have a limited lifespan, of no more than 3 to 4 years. None is of a scale and potential lifespan to provide the soil waste capacity required on a continuous and sustained basis to the same degree as the approved backfilling and recovery activities at Huntstown South Quarry.

² Construction and Demolition Waste Soil and Stone Recovery / Disposal Capacity Update Report 2020, Regional Waste Management Planning Offices, Dec 2020

- 3.25 Aside from any projected future increase in demand from construction activity, it is conceivable that there will be a further increase in demand for licensed soil waste recovery capacity as a result of several other factors including:
- a further reduction in demand for soil cover at municipal or industrial landfill facilities;
 - a future increase in enforcement activity to tackle unauthorised waste disposal activity;
 - the reduction in soil waste intake capacity being provided at the Huntstown facility (which will reduce from 1,500,000 tonnes per annum to 750,000 tonnes per annum after 2022, assuming the waste licence review application under consideration is ultimately approved by the EPA); and
 - the possible reduction in waste recovery capacity at permitted and registered waste facilities as a result of enhanced regulation and the stated policy objective in waste management plans to preferentially support the development of larger capacity waste facilities rather than a myriad of smaller ones.
- 3.26 In light of the foregoing, it is considered that the proposal to commence soil intake for backfilling and recovery purposes at Huntstown South Quarry, at the rate of 750,000 tonnes / annum (in line with existing planning permission) can be justified on the basis that:
- it complies with stated national and regional waste policy objectives, in particular the objective to preferentially develop / promote large scale soil recovery facilities in all waste management regions;
 - the facility will contribute to baseline capacity for soil waste recovery activity within the Greater Dublin Region over the medium to long-term and give some certainty around the provision of such capacity over an extended period (in excess of 10 years); and
 - Roadstone has a proven track record in providing significant soil recovery capacity at large scale, well managed recovery facilities at strategically located quarry sites over an extended period.

ALTERNATIVE LOCATIONS

- 3.27 It should be recognised that inert soil and stone waste recovery facilities typically accept and handle large volumes of relatively low value wastes and that transportation and haulage costs account for a significant proportion of overall costs to waste producers, in this instance construction contractors and/or site developers. There is therefore a strategic and commercial value and benefit to locating inert waste management facilities in close proximity both to the markets they serve and to high quality national and/or regional road networks.
- 3.28 From an environmental perspective, proximity to markets also means that there are reduced carbon emissions associated with road haulage of soil and stone waste to recovery facilities. This accords with the general principles of sustainable development.

Development at Greenfield Site

- 3.29 The provision of 750,000 tonnes of soil waste intake capacity per annum at an extended Huntstown soil recovery facility offers clear environmental and economic advantages in the years ahead relative to any alternative which would provide a comparable level of intake capacity at a greenfield site location elsewhere across the Greater Dublin Area or Eastern Midlands Waste Management Region (e.g., within an existing natural depression, or benched into an existing natural slope).

- 3.30 The restoration of the former quarry void at Huntstown South Quarry through the development and operation of a soil waste recovery facility and backfilling using imported, inert soil and stone waste, is already permitted under a pre-existing planning permission as it is recognised to be a logical, progressive evolution from past extractive activities and is also compatible with previously permitted quarry development.
- 3.31 As was the case with preceding quarry development, backfilling and recovery activities at the quarry will essentially comprise handling, placement and transport of naturally occurring geological materials.
- 3.32 Although they may differ slightly, the potential environmental impacts associated with backfilling and waste recovery activities on the western side of the South Quarry will essentially be similar in nature to those associated with prior extraction of rock (specifically in respect of potential dust and noise emissions, potential impacts on surface water and groundwater, and traffic related impacts). Likewise, the mitigation measures and environmental controls which will be used to reduce and eliminate these impacts are broadly similar to the best practice measures used in the extractive sector.
- 3.33 The development of a soil recovery facility at an alternative greenfield site is unlikely to offer any potential for a long-term beneficial outcome comparable to that which will ultimately arise at the South Quarry. On completion, the quarry will be backfilled to original ground level and restored to grassland and agricultural use, reinstating the original pre-development landform and land use in the short-term, with potential for further development thereafter.
- 3.34 Development of a new facility at a greenfield site with an annual soil intake capacity of the magnitude provided for with this waste licence review application (i.e. 750,000 tonnes per annum) would necessitate significant site development works and associated cost. Given the compatibility with past extractive activities and the fact that the necessary site infrastructure is already in place at Huntstown, this means that the continuation of soil recovery activities there will:
- extend the life of pre-existing development / infrastructure;
 - minimise waste;
 - conserve resources; and
 - reduce establishment costs.

As such, the extension of licenced soil waste recovery activities to Huntstown South Quarry will be more in keeping with the principles of sustainable development and related public policy objectives in respect of the circular economy than any alternative development (or provision of replacement backfill and waste recovery capacity) at a greenfield site.

- 3.35 It is considered that the backfilling and soil recovery activities at Huntstown South Quarry is, subject to implementation of best environmental management practices and compliance with established planning and waste licensing controls, more appropriate, more sustainable, less likely to generate significant environmental impacts and less likely to give rise to nuisance complaints than would otherwise be the case were a new or replacement facility located at any alternative 'greenfield' (i.e. previously undeveloped) site location.

Development at Alternative Quarry Location

- 3.36 In the overall planning context, given its long-term beneficial impact in restoring a previously disturbed landform to its original ground profile and the reduced short-to-medium term impacts over its operational life, it is considered that the establishment and operation of an inert waste recovery facility at a former quarry site is clearly preferable to an alternative 'greenfield' site.

- 3.37 As previously noted, the Huntstown South Quarry is strategically located close to Dublin City and is well served by the existing national road network, principally the M50 Motorway and N2 Dual Carriageway and is located within a quarry complex which has a history of significant traffic generation / local road use associated with previous extractive activities and more recent soil waste recovery activity (specifically at the nearby North and West Quarries).
- 3.38 The South Quarry is also of sufficient size and scale (particularly with respect to void capacity) that it can support the required level of day-to-day operational expenditure required to operate a soil waste recovery facility, in accordance with pre-existing planning and waste licencing conditions.
- 3.39 At the present time, having regard to the criteria and policy objectives set out in the EMRWMP, particularly around the suitability of former quarry sites for development of soil and stone, it is considered that there are unlikely to be many other strategically located quarry sites within the Greater Dublin Area which offer the potential to develop a recovery facility of comparable size and capacity.

DO NOTHING ALTERNATIVE

- 3.40 If the proposed waste licence review application is not approved, alternative strategies would have to be developed to progress the restoration of the South Quarry to agricultural land use in line with the conditions attached to the current extractive permission, most likely using materials classified as non-waste by-product under Article 27 of the European Communities (Waste Directive) Regulations (S.I. No. 126 of 2011, as amended). Although the end result would be the same as that provided for in the licence review application, it could ultimately take longer to complete given the limited number of decisions made by the Agency confirming by-product status for soil and stone to date.
- 3.41 In the meantime, and in the absence of any further soil waste intake capacity being made available at Huntstown, the replacement soil waste intake and recovery capacity (of 750,000 tonnes per annum) would need to be identified and made available within a relatively short time period (by early 2023) across a range of other waste facilities within the Greater Dublin Region. Such facilities would likely be more distant from the core Dublin market where much of the soil waste is likely to be generated and would result in an increased number of longer HGV trips on the road network, increased emissions, reduced efficiency and increased cost.