Our Case Number: ABP-317292-23

An Bord Pleanála

Hugh Coughlan
Eastern-Midlands Waste Region & Others
Dublin City Council
Block 1, Floor 6, Civic Offices
Dublin 8

Date: 31st October 2023

Re: Proposed development of an extension to the existing Drehid Waste Management Facility to provide for acceptance of up to 440,00 TPA of non-hazardous waste material in the townlands of Timahoe West, Coolcarrigan, Killinagh Upper, Killinagh Lower, Drummond, Drehid, Kilkeaskin, Loughnacush, and Parsonstown, County Kildare.

Dear Sir,

An Bord Pleanála has received your submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter.

The Board will revert to you in due course in respect of this matter.

Please be advised that copies of all submissions / observations received in relation to the application will be made available for public inspection at the offices of the local authority and at the offices of An Bord Pleanála when they have been processed by the Board.

More detailed information in relation to strategic infrastructure development can be viewed on the Board's website: www.pleanala.ie.

If you have any queries in the meantime, please contact the undersigned officer of the Board.

Teil	**Tel**	(01) 858 8100
Glao Áitiúil	**LoCall**	1800 275 175
Facs	**Fax**	(01) 872 2684
Láithreán Gréasáin	**Website**	www.pleanala.ie
Ríomhphost	**Email**	bord@pleanala.ie

64 Sráid Maoilbhríde
Baile Átha Cliath 1
D01 V902

64 Marlborough Street
Dublin 1
D01 V902

Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

Eimear Reilly
Executive Officer
Direct Line: 01-873 7184

PA09

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From: LAPS <laps@pleanala.ie>
Sent: 31 October 2023 14:48
To: Una Fitzgerald <una.fitzgerald@dublincity.ie>
Cc: Eimear Reilly <e.reilly@pleanala.ie>; Hugh Coughlan <hugh.coughlan@dublincity.ie>; King, Philippa <philippa.king@limerick.ie>
Subject: RE: ABP-317292-23: Proposed development of an extension to the existing Drehid Waste Management Facility

Dear Una,

The Board acknowledges receipt of your email and attached submission on the above-mentioned application.

Kind Regards,
Sarah

From: Una Fitzgerald <una.fitzgerald@dublincity.ie>
Sent: Tuesday, October 31, 2023 1:34 PM
To: LAPS <laps@pleanala.ie>
Cc: Eimear Reilly <e.reilly@pleanala.ie>; Hugh Coughlan <hugh.coughlan@dublincity.ie>; King, Philippa <philippa.king@limerick.ie>
Subject: ABP-317292-23: Proposed development of an extension to the existing Drehid Waste Management Facility

Good afternoon
I refer to your letter dated 3rd October 2023 to the Eastern-Midlands Regional Waste Management Planning Office with respect to the above case.
Please find attached our observation plus accompanying supporting document.
Regards

Úna Fitzgerald

|**Regional Technical Officer**| **Eastern-Midlands Regional Waste Management** Planning Office|

|Dublin City Council | Environment & Transportation Department | Block B, Floor 2, Blackhall Walk, Queen Street, Dublin 7, Ireland|

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eastern - midlands
waste region

REGIONAL WASTE MANAGEMENT PLANNING OFFICES

31st October 2023

An Bord Pleanála,

64 Marlborough Street,

Dublin 1.

RE: Case reference PA09.317292 - Further Development at Drehid Waste Management Facility.

Dear Sir/Madam,

The Eastern Midlands, Connacht-Ulster and Southern Regional Waste Management Planning Offices (RWMPOs) wish to jointly submit our observations regarding the above referenced application to An Bord Pleanála.

1 Introduction

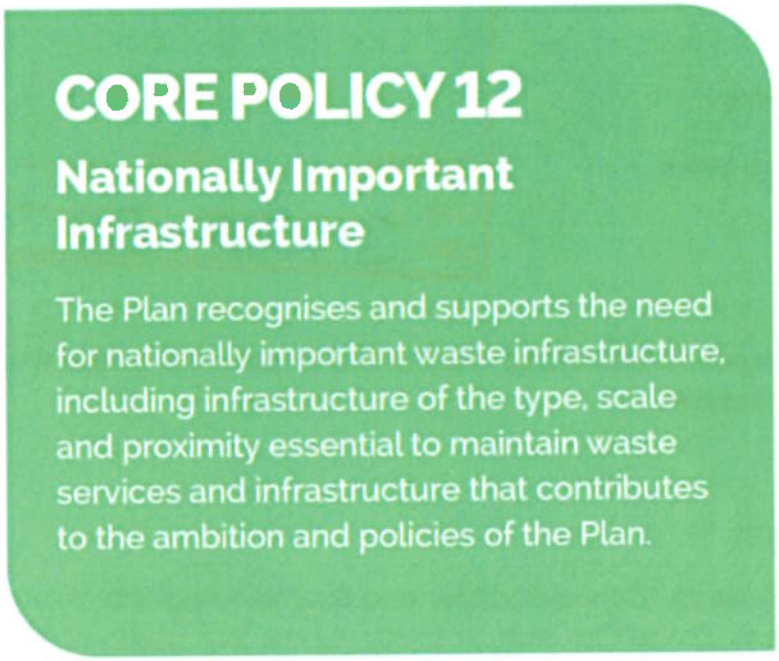
This submission makes reference to the draft National Waste Management Plan 2023 - 2029[1] (hereafter dNWMP), which was published on 3rd May 2023. At the time of writing of this submission, the preparation of the final National Waste Management Plan is in progress, due for publication in January 2024. The National Waste Management Plan 2024 - 2030 will replace the three regional waste management plans for the Connaght-Ulster, Eastern-Midlands and Southern waste regions.

The RWMPOs on behalf of the Local Authority Sector recognise and support the need for continued, albeit limited, landfill capacity in Ireland, for inert and non-hazardous waste. EU and national policy is underpinned by the waste hierarchy, which places landfill at the lowest tier, however for certain waste streams which are not suitable for recycling or recovery, landfill remains a viable and necessary option. This is articulated in the draft National Waste Management Plan 2023 - 2029.

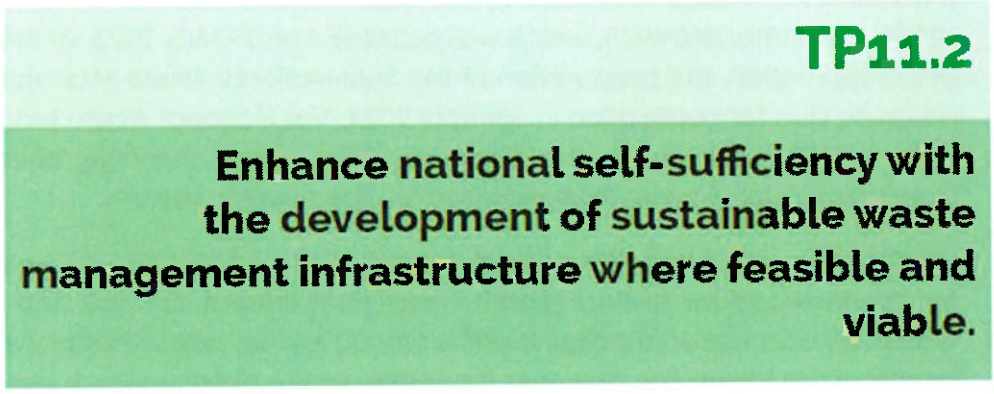
With respect to infrastructure planning in particular, the dNWMP contains a number of policies that are relevant to the proposed development. These are referred to in the body of this submission and are reproduced below for reference.

[1] https://www.mywaste.ie/national-waste-management-plan-2023/

REGIONAL WASTE MANAGEMENT PLANNING OFFICES



Core Policy 12 of the dNWMP



Targeted Policy TP11.2 of the dNWMP, Focus Area 11 Infrastructure (Regulatory)

REGIONAL WASTE MANAGEMENT PLANNING OFFICES

TP11.3

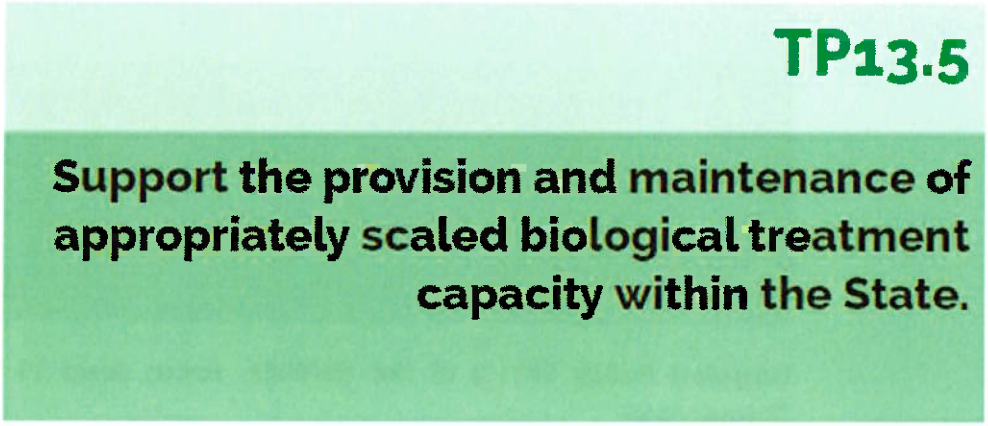
Ensure that future authorisations of waste infrastructure take account of the authorised and available capacity in the market.

Targeted Policy TP11.3 of the dNWMP, Focus Area 11 Infrastructure (Regulatory)

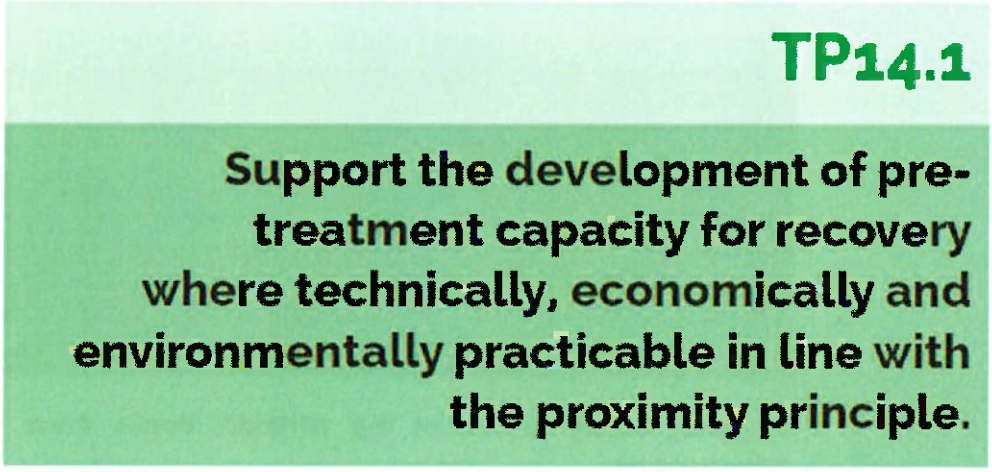
TP13.1

Support the development of pre-treatment (for recycling), reprocessing and recycling capacity where technically, economically and environmentally practicable in line with the proximity principle.

Targeted Policy TP13.1 of the dNWMP, Focus Area 13 Recycling Infrastructure



Targeted Policy TP13.5 of the dNWMP, Focus Area 13 Recycling Infrastructure



Targeted Policy TP14.1 of the dNWMP, Focus Area 14 Recovery Infrastructure

TP14.4

Support the provision of treatment capacity for non-hazardous construction and demolition waste streams (in particular soils, fines, rubble and concrete).

Targeted Policy TP14.4 of the dNWMP, Focus Area 14 Recovery Infrastructure

TP14.5

Support the provision of national capacity for bottom ash from existing thermal treatment facilities, pending the provision of alternative uses which optimise the circularity of this material.

Targeted Policy TP14.5 of the dNWMP, Focus Area 14 Recovery Infrastructure

TP15.1

Additional disposal capacity for non-hazardous waste is only supported in the context of compliance with the EU target of disposal to landfill of not more than 10% of MSW by 2035.

Targeted Policy TP15.1 of the dNWMP, Focus Area 14 Disposal Infrastructure

TP15.2

Ensure the provision of appropriate waste contingency capacity in response to market disruption/interruption and/or events which pose a risk to the environment and/or health of humans and livestock.

Targeted Policy TP15.2 of the dNWMP, Focus Area 15 Disposal Infrastructure

2 Commentary

Section 2 of this submission outlines the main elements of the proposed development individually, and provides commentary against each one.

Increase in acceptance of non-hazardous household, commercial & industrial and C&D waste at the existing landfill from the currently permitted disposal quantity of 120,000 TPA (Tonnes per Annum) to a maximum of 280,000 TPA. The 280,000 TPA includes a contingency tonnage of 30,000 TPA, which may or may not be used, or may be only partly used.

The associated development of an extended landfill footprint of approximately 35.75 ha, to accommodate the disposal of a total of 290,000 TPA, as well as the recovery of an estimated 50,000 TPA of engineering materials, for a period of 25 years, to commence once the existing landfill void space is filled. This equates to a total (additional landfill capacity) volume of c.7,150,000 m³ (c.8,500,000 tonnes). The 290,000 TPA includes the aforementioned 250,000 TPA, as well as 40,000 TPA for outputs from the MSW Processing and Composting Facility. The applicant is satisfied that the estimated volume of 7,150,000m³ which is based on a blended density, is sufficient to accommodate the contingency disposal capacity.

The proposed activities outlined above are consistent with a number of the policies set out in the dNWMP, namely Core Policy 12, Targeted Policies TP11.2, TP11.3, TP14.4, TP14.5, TP15.1 and TP15.2 (refer to Section 1 above).

Since the establishment of the RWMPOs in 2015, a critical role of the offices has been to monitor the waste treatment capacity, both within Ireland and through export options, for key waste streams including residual Municipal Solid Waste (MSW) and residual Construction & Demolition (C&D) wastes (i.e the residual fines fraction from the processing of mixed skips and brownfield / non-hazardous soil & stone), both of which present significant challenges with respect to available treatment options.

The treatment options for residual MSW within the state are disposal at landfill and thermal treatment. Shortfalls in this treatment capacity has meant that Ireland relies on export options for these wastes (286,551 tonnes in 2022, refer to the RWMPO Treatment Capacity Report attached).

Disposal at landfill remains the most viable treatment option within the state for residual C&D waste. Shortfalls in this treatment capacity has meant that Ireland also relies on export options for these wastes (207,805 tonnes in 2022, refer to the RWMPO Treatment Capacity Report attached).

Ireland needs to reduce its reliance on export which is high risk in terms of security of supply and is also contrary to the Proximity Principle resulting in a higher carbon footprint. This is articulated in the dNWMP.

The current trend for waste generation is growth. Both MSW and residual C&D waste quantities are projected to continue to increase in the coming years, even with allowances made for expected interventions (refer to Chapter 6 of Volume I of the dNWMP as well as Chapter 1 of Volume III of the dNWMP).

C&D waste is by far the most significant waste stream in Ireland in terms of the overall quantities of waste arising with 9 million tonnes generated in 2021[2], 85% of which is soil & stone. The majority of C&D waste at presentis either recycled or recovered, and furthermore from 2024 onwards, the national decision on by-product for soil & stone has the potential to avoid significant quantities of uncontaminated soil & stone being managed as waste in the first place. However, the quantities of residual C&D waste requiring disposal remain significant and compete with residual MSW, as well as biostabilised fines and other residual wastes such as those listed in Section 2.2.4.1 of the EIAR, for domestic non-hazardous landfill void space. The availability of domestic disposal capacity for non-hazardous residual waste, remains critical in the short to medium term.

Under the dNWMP, the existing Drehid facility and its proposed development is considered to be 'Nationally Important Infrastructure' (refer to Chapter 5.9 in Volume 1, Core Policy CP12 in Volume II and Chapter 3.2 in Volume III of the dNWMP).It follows that this facility with the increased quantities applied for, will need to continue to operate beyond 2028.

The RWMPOs recommend imposing four conditions with respect to this element of the proposed development; these are outlined and explained below.

> ***Proposed Condition 1:*** **a condition should be formulated to limit the acceptance of residual MSW for disposal to 120,000 TPA. This restriction would not apply in instances requiring the acceptance for disposal of residual MSW as a result of the activation of contingency capacity provisions.**
>
> The RWMPOs do not have any concerns with the proposed tonnages outlined above for acceptance (280,000 TPA including maximum contingency), or for disposal in the void (320,000 TPA including maximum contingency). In addition it is noted that the applicant does not propose to limit the tonnages for the individual waste types making up those total tonnages, to allow the flexibility to respond to changing market conditions, with the exception of the tonnage for residual MSW, which the applicant specifically addresses. This was the

[2] Construction & Demolition | Environmental Protection Agency (epa.ie)

subject of a pre-application consultation between the applicant and the RWMPOs. The applicant is proposing to limit the acceptance of residual MSW to 120,000 TPA, and the RWMPOs agree with and support this limit. Accordingly, we are recommending the formulation of the proposed condition outlined above.

The purpose of this limit is to acknowledge and to work towards the EU target of disposal to landfill of not more than 10% of MSW by 2035 (dNWMP policy TP15.1, refer to Section 1 above). This target is aligned with other EU targets and dNWMP targets around reuse and recycling, as well as consumption, with the objective of encouraging the expansion of waste treatment options further up the waste hierarchy and accelerating Ireland's transition to a fully circular economy.

The RWMPOs recommend that the proposed tonnage limit of 120,000 TPA of residual MSW be kept under review, with the first review taking place after three years, to allow for consideration of the prevailing conditions at that time, which may justify a different tonnage limitation.

Proposed Condition 2: **a condition should be formulated to oblige the applicant to set aside a proportion of their annual landfill capacity as contingency disposal capacity up to a maximum of 30,000 TPA.**

The dNWMP contains a specific policy in relation to the provision of contingency capacity for the treatment of waste, namely TP15.2 (refer to Section 1 above).

In order to contribute to the provision of contingency disposal capacity in the state, the RWMPOs recommend that the granting of permission for the proposed increase in landfill capacity be conditioned to oblige the applicant to set aside a proportion of their annual landfill capacity as contingency capacity. The RWMPOs recommend the provision of an annual contingency disposal capacity of 30,000 tonnes. This equates to approximately 10% of the proposed maximum landfill capacity at the site of 290,000 TPA (250,000 TPA at the gate + 40,000 TPA outputs from the MSW Processing and Composting Facility). The waste acceptance procedures and the operational practices for the filling of the landfill, should reflect a requirement to maintain 30,000 tonnes of built disposal capacity annually.

Section 37A of the Waste Management Act (inserted under European Communities [Waste Directive] Regulations 2011) requires that the state '*shall take appropriate measures to establish an integrated and adequate network*

of waste disposal installations'. In order to fulfil the obligation with respect to an 'adequate' network, the Local Government Sector recognises the need for contingency capacity for waste in the event of an interruption to normal services. Since 2016, owing to a lack of any contingency disposal capacity within the state, emergency measures have been implemented four times (on three occasions by local authorities, through the invokation of Section 56 of the Waste Management Act, and once by the EPA through the invocation of Section 56A of the Act) in order to quickly provide disposal capacity for residual wastes. The RWMPOs are keenly aware of ongoing capacity issues, and the need for a better system for the provision of contingency capacity.

Contingency measures are well established in Ireland in other sectors, for example the oil sector. Under the EU's Oil Stocks Directive 2009/119/EC, Ireland has obligations to maintain 90 day reserves of national strategic oil stocks, to be used in the event of supply disruptions. The maintenance of these reserves is funded by a levy payable by oil marketing companies and oil consumers. Whilst this model is somewhat different to what is being proposed here for waste capacity, the principle of maintaining contingency capacity for unforeseen circumstances is the same.

Activation of the contingency disposal capacity would be subject to the consent of the local authority (Kildare County Council) in consultation with the Eastern-Midlands RWMPO and a mechanism to activate its use would be defined in a dedicated protocol, established between the applicant and the RWMPOs with input from other relevant stakeholders such as Kildare County Council and the EPA. Such a protocol must take account of the EU target for the disposal to landfill of not more than 10% of MSW by 2035 (also dNWMP TP15.1).

It is noted that a similar contingency arrangement for disposal capacity for non-hazardous waste has already been conditioned by An Bord Pleanála on the granting of planning permission for the Knockharley Landfill facility in April 2021 (Condition No. 4, ABP Ref. PA17/303211).

Proposed Condition 3: a condition should be formulated to impose a restricted timeline of 5 years (as opposed to the 25 years applied for), on the acceptance of IBA for disposal, with the flexibility of this being extended for a further period.

Proposed Condition 4: a condition should be formulated to oblige the applicant to operate a dedicated cell for the acceptance of IBA.

The RWMPOs support the development of domestic outlets for incinerator bottom ash in the short to medium term (ref dNWMP TP14.5 in particular, refer to Section 1 above).

IBA has excellent potential for use as a secondary raw material in civil engineering applications e.g for use as aggregate. The long term sustainable management of this waste stream/resource is for it to be put to beneficial use in a circular economy. Under the Waste Framework Directive, the beneficial use of this material outside of recovery applications in authorised waste facilities, would require end-of-waste status. In the meantime, if the tonnages of IBA arising in Ireland are to be managed domestically, this would require landfilling in the short to medium term.

However, the RWMPOs do not support the granting of permission for the disposal of this material for a period of 25 years. Doing so may prolong the management of this waste stream by means of disposal, at the expense of developing protocols and a market for the recovery and beneficial use of IBA e.g end-of-waste coupled with the introduction of a tax on the use of virgin aggregate. Alternatively, it is recommended that a shorter timeline of 5 years be imposed on the acceptance of this waste stream for disposal, with the option of this being extended, for a further period, depending on the policy and legislative framework at the time, with respect to end-of waste, as well as market conditions for replacement IBA aggregate.

Furthermore, the RWMPOs recommend that a condition of permission should be imposed, to ensure that the residual IBA is landfilled separately to the other non-hazardous waste streams accepted, to facilitate the extraction of this material, for recovery and beneficial use, at a point in the future should favourable conditions prevail for doing so. It is acknowledged that imposing this operational restriction would require that this material be landfilled in a dedicated cell, which would require two separate working faces within the landfill.

Development of a new processing facility, for the recovery of 70,000 TPA of inert soil & stone and C&D waste (rubble) and use of same for engineering and construction purposes within the site, including as engineering material in the landfill.

This proposed activity is consistent with a number of the policies set out in the dNWMP, Targeted Policy TP14.4 in particular and also TP11.2 and TP14.1 (refer to Section 1 above).

It is understood that c.50,000 TPA of these materials would be used within the landfill void as engineering materials for uses such as daily cover, haul roads, access ramps, intermediate cover (subject to meeting particular waste acceptance criteria). This material would pass through the Soils Processing Building, whereby it may be processed to varying degrees, in order to optimise its composition for the aforementioned uses e.g screening to produce (waste) aggregates of different grades, and would still exit the Soils Processing Building as waste. The use of this 50,000 TPA would qualify as a recovery activity and this means that this waste would be put to beneficial use as a secondary material, thereby avoiding the need to source primary raw materials for these purposes. This activity would contribute to the expansion of the circular economy in Ireland and is viewed favourably by the RWMPOs.

It is understood that the balance of c.20,000 tonnes of inert soil & stone and C&D waste would also be put to beneficial use on the site, with that use happening outside of the landfill void and beyond the liner i.e beyond any containment measures e.g construction of access roads and yards in areas outside of the landfill footprint. This means that stricter controls around the processing of this material in the Soils Processing Building would apply, to reach a standard that would meet 'end-of-waste' criteria for recycled aggregates. The ultimate use of this material on site would therefore qualify as a recycling activity, thereby avoiding the need to source primary raw materials for these purposes. This activity would contribute to the expansion of the circular economy in Ireland and is viewed favourably by the RWMPOs.

Increase in acceptance of waste at the existing Composting Facility from 25,000 TPA to 35,000 TPA and removal of the restriction on the operating life of the Composting Facility contained in Condition 2(2) of ABP Ref. No. PL.09.212059

This proposed activity is consistent with a number of the policies set out in the dNWMP, Targeted Policy TP13.5 in particular and also TP11.2 (refer to Section 1 above).

The applicant is proposing that the biological treatment facility will continue to accept the same waste types that are currently being accepted at the existing facility i.e organic fines from the mechanical treatment of residual MSW and source

segregated organic waste (brown bin waste), with an increase of 10,000 TPA on the throughput. It is understood that the facility is configured to accept and treat both of these waste types.

The roll out of the brown bin to all households and commercial enterprises is ongoing, with the ambition of achieving full roll-out by the end of 2023, in accordance with the impending legislative obligation under the Waste Framework Directive and S.I No. 323 of 2020 European Union (Waste Directive) Regulations, 2020. With the anticipated increase in the source segregation of organic waste, this would give rise to a reduction in the quantities of organic waste in the residual MSW bin and therefore a reduction in the quantities of organic fines requiring bio-stabilisation, whereas the quantities of source segregated organic waste are set to increase. Whilst this involves a diversion of waste from one bin to another, the overall effect should see an absolute increase nationally in the tonnages of organic waste requiring biological treatment, since only the fines fraction (typically <60mm) of the residual MSW bin are captured for bio-stabilisation. Losses of oversized organic waste (>60mm) to the residual MSW waste stream, would effectively be prevented.

The RWMPOs favourably view the proposal to increase the TPA limit from 25,000 to 35,000, and to remove the restriction on the lifetime of the existing approved 25,000 TPA, as well as an unrestricted lifetime for the proposed additional 10,000 TPA.

Extension to, and reconfiguration of, the existing Composting Facility to provide for a new MSW Processing and Composting Facility with an additional capacity of 55,000 TPA (giving a combined total for the MSW Processing and Composting Facility of 90,000 TPA), allowing for the combined facility to accept both MSW and other organic wastes

This proposed activity is consistent with a number of the policies set out in the dNWMP, Targeted Policy TP14.1 in particular and also TP11.2 (refer to Section 1 above).

The proposed pre-treatment of up to 55,000 TPA of residual MSW would see the optimisation of this material in terms of extracting value. This process would extract materials from this waste stream that could be put to beneficial use e.g alternative fuel at cement plants, reuse of metal, whilst at the same time reducing the quantities of residual waste for disposal. This is in line with the waste hierarchy and would contribute to the circular economy.

The RWMPOs favourably view the proposal to extend and reconfigure the existing Composting Facility to provide for the pre-treatment of 55,000 TPA of residual MSW.

3 Summary

A summary of the proposed waste activities with reference to the dNWMP is provided in the table below.

Waste Activity	Tonnage per Annum	Lifetime	Consistent with dNWMP	Conditions Recommended
Non-hazardous Landfill: disposal	320,000[1]	25 years	Yes	Yes
Non-hazardous Landfill: recovery	50,000	25 years	Yes	No
C&D Processing Facility	70,000[2]	25 years	Yes	No
Biological Treatment Facility	35,000[3]	Unrestricted	Yes	No
MSW Processing Facility	55,000[3]	Unrestricted	Yes	No

[1] includes up to 30,000 TPA for contingency
[2] includes the 50,000 TPA destined for recovery within the landfill void
[3] The Biological Treatment Facility and the MSW Processing Facility to be contained in the same building with a total intake of 90,000 TPA

The RWMPOs recommend imposing four conditions with respect to the disposal of up to 320,000 TPA in the non-hazardous landfill; these are reproduced below.

Proposed Condition 1: a condition should be formulated to limit the acceptance of residual MSW for disposal to 120,000 TPA. This restriction would not apply in instances requiring the acceptance for disposal of residual MSW as a result of the activation of contingency capacity provisions.

Proposed Condition 2: a condition should be formulated to oblige the applicant to set aside a proportion of their annual landfill capacity as contingency disposal capacity up to a maximum of 30,000 TPA.

Proposed Condition 3: a condition should be formulated to impose a restricted timeline of 5 years (as opposed to the 25 years applied for), on the acceptance of IBA for disposal, with the flexibility of this being extended for a further period.

Proposed Condition 4: a condition should be formulated to oblige the applicant to operate a dedicated cell for the acceptance of IBA.

REGIONAL WASTE MANAGEMENT PLANNING OFFICES

Yours sincerely,

p.p_____

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Co-ordinator
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Waste Treatment Capacity Analysis-Q4 2022 Projections 2023 Bulletin

(Including residual municipal solid waste (rMSW) and other relevant waste streams)

HEADLINE ISSUES

There was sufficient capacity in the market to process rMSW arisings in 2022 mainly due to the absence of carry-over from 2021.

Mitigating against carryovers from year to year will assist a functioning market.

Not with-standing the normalization of activities post Covid-19 rMSW processing has not reached pre-pandemic levels of our baseline year 2019.

Imports of SRF/RDF and disinfected clinical waste increased in 2022.

Export of C&D fines to Northern Ireland has continued to increase in 2022.

Capacity Projections for 2023 which include export indicate the ability to manage expected arisings even with continued waste growth.

1.0 Background

The Regional Waste Management Planning Offices, (RWMPO's), prepare quarterly reports on waste treatment capacity in Ireland and this is the Q4 2022 report including projections for waste arising in 2023. Waste data was collected in association with the EPA, the Irish Waste Management Association and the waste industry.

In this report the RWMPO's also look forward to 2023 and the likely scenarios that will impact on quantifying waste generation. Capacity issues could be somewhat alleviated if final waste licence decisions are progressed during 2023 and the timing of any decisions will have a substantial impact on arrangements.

Projections are derived from the Projections Model produced as part of the preparation of the Draft National Waste Management Plan for a Circular Economy due to be published in coming weeks.

The report also discusses C&D Waste trends for 2022 and the outlook for 2023 as well as a review of medical waste management.

2.0 Residual MSW Treatment Capacity

The graph below indicates that the total rMSW processed in Q4 2022 was 418,763 tonnes which is 70,000 tonnes less than the quantity of rMSW processed in Q4 2021.Waste processed in Q4 2021 was impacted by the emergency measures invoked by the EPA which enabled the processing of additional waste in that quarter.

The graph in Figure1 illustrates the consistency of processing rMSW in all quarters of 2022.

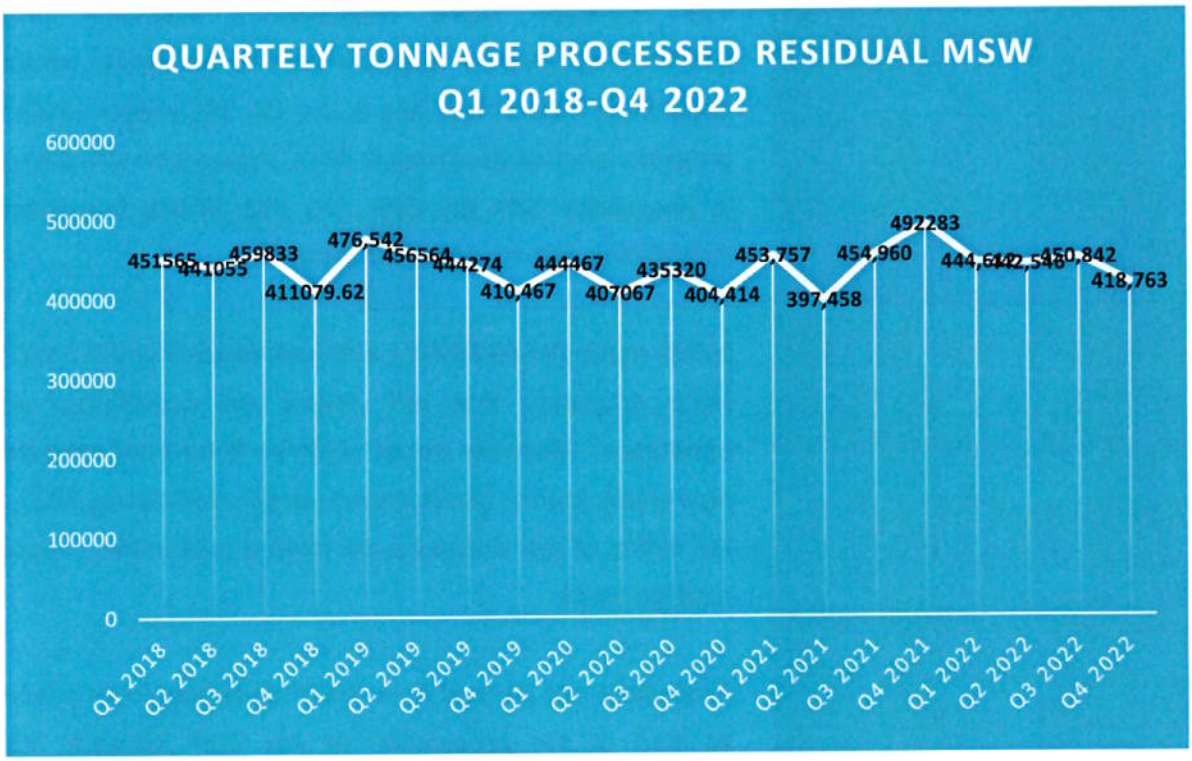

Figure 1: rMSW processed per quarter from 2018-2022

The cumulative amount processed for Q1-Q4 2022 is 1.756 **MT** and is slightly less than the 1.798 **MT** processed in 2021 however the impact of the emergency measures in 2021 affects this comparison.

Waste processed in 2022 is however less than the baseline pre pandemic amount of 1.78MT processed in 2019.

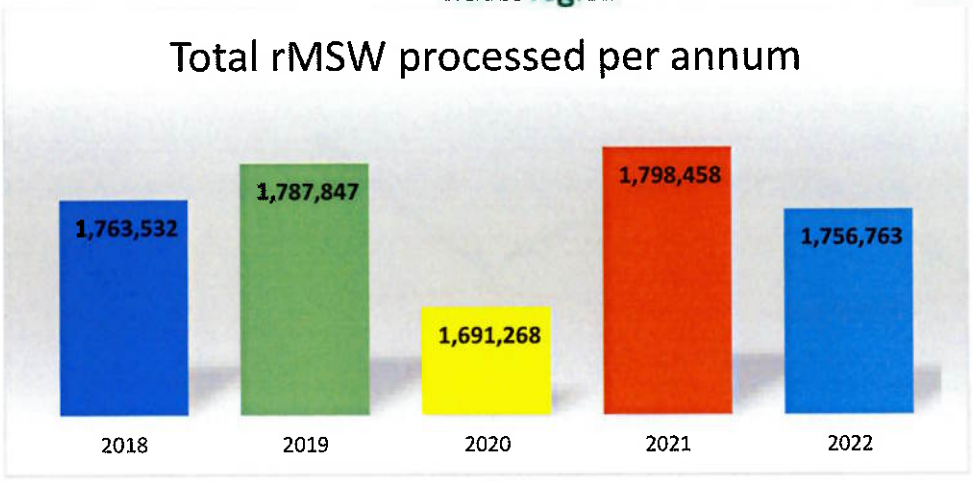

Figure 2: Total tonnage of rMSW processed 2018 to 2022

2.1 Waste Recovery

Recovery of residual MSW in Ireland is achieved through direct thermal treatment and co-processing in the cement manufacturing processes.

The thermal recovery sector processed 279,921 tonnes of rMSW in Q4 2022 while the WTE plants processed quantities close to their projections made at the start of 2022.
Cement kilns processed 19,370 tonnes less SRF/RDF generated in the Republic of Ireland in 2022 than the industry had projected for 2022.

Cement Kilns imported over 33,000 tonnes of SRF/RDF/Plastic in 2022.

WTE plants imported 11,966 tonnes of SRF/RDF from Northern Ireland in 2022.

Figure 4 indicates the trends in imports from Northern Ireland over the last five years.

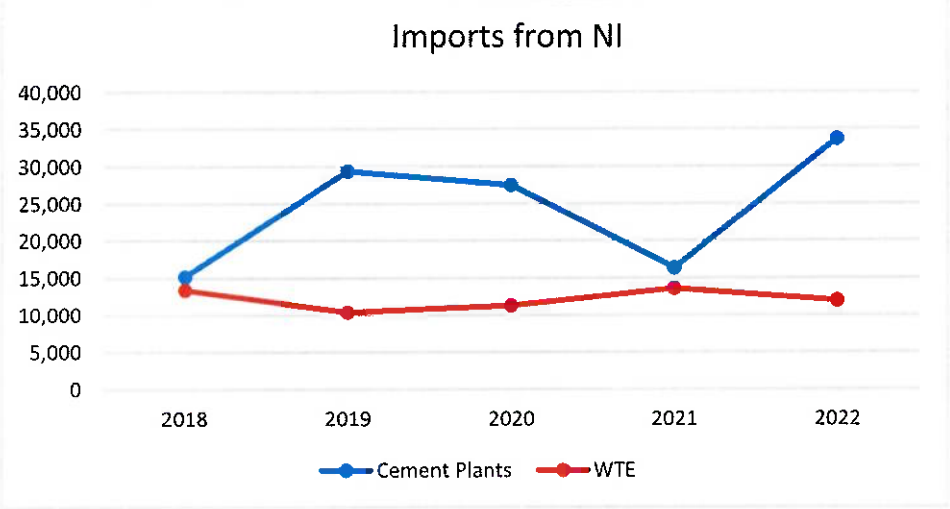

Figure 4: Trends in Imports in Northern Ireland in 2018-2022

*9000 tonnes of disinfected medical waste was also imported to an interim facility from NI in 2022.

A review of thermal treatment over the past five years indicates consistent performance at these facilities demonstrating reliable processing capacity as indicated in figure 5 below.

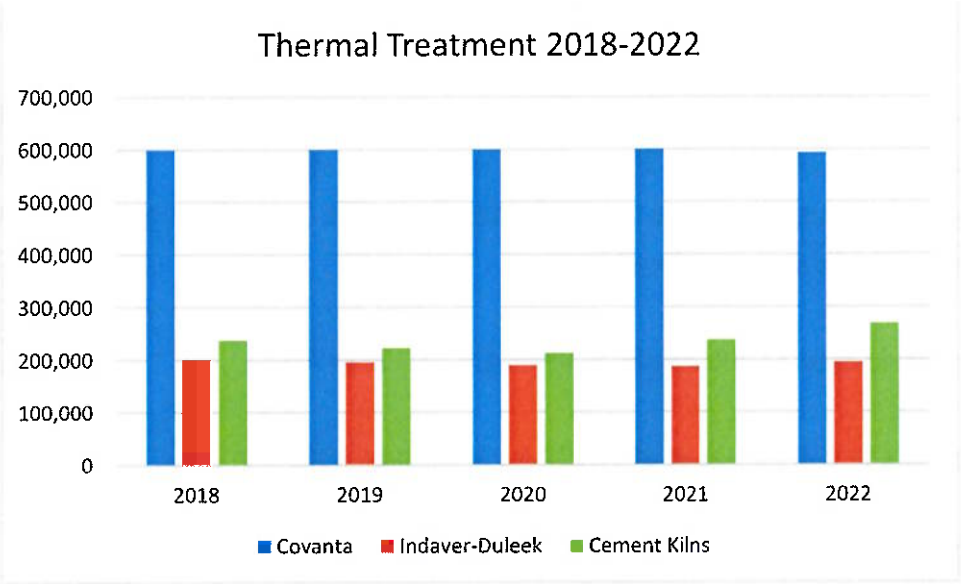

Figure 5: Thermal Treatment of rMSW 2018 to 2022

Total recovery capacity for 2022 was estimated at 1.090 Mt provided by Covanta (Poolbeg), Indaver (Duleek) and the Cement kilns and a total of 1.057 Mt was processed representing 97% of the target.

2.2 Waste Export

The export of rMSW for recovery continues to be a solution to capacity issues and provides recovery capacity not currently available in the country. 57,811 Tonnes of rMSW was exported in Q4 2022, a lower amount than the previous quarters of 2022. The total quantity exported in 2022 was 286,551tonnes, the lowest annual export quantity since 2018.

Baled rMSW continues to be exported as a pre-treated/untreated Refuse Derived Fuel (RDF) for thermal treatment generally to efficient WTE plants on the continent of Europe. Export trends since 2012 are illustrated in **Figure 6** below.

It is important to note that pre-treatment for export generally requires a consistent monthly input and therefore export needs to be balanced across each quarter. A final outlet for bio-stabilized organic fines produced during processing is also required.

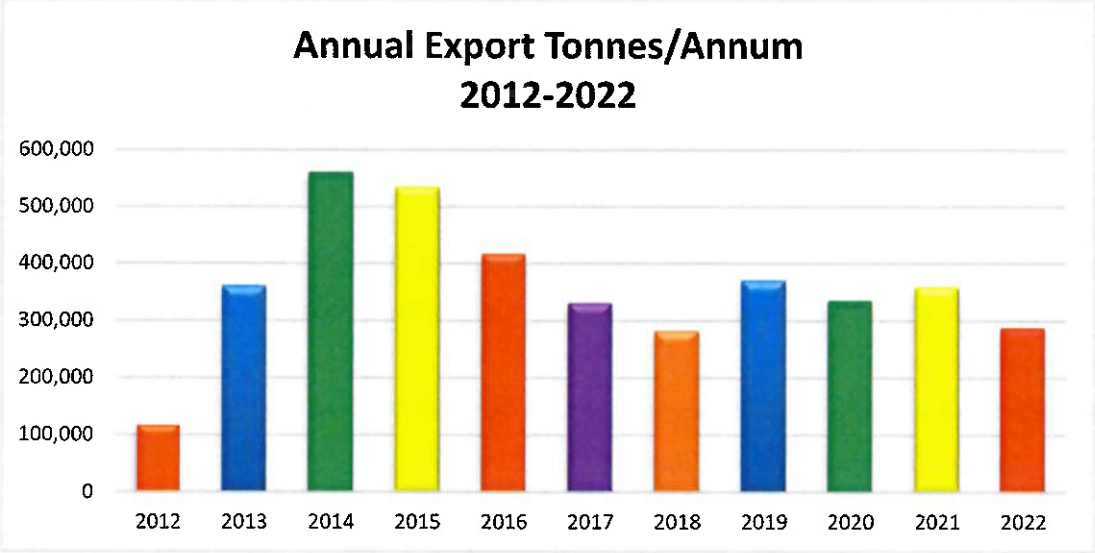

Figure 6: Export RDF 2012-2022

Total export capacity for 2022 was predicted to be 350,872 tonnes but out turned at 286,511 tonnes which was 82% of projected export for 2022.

2.3 Waste Disposal

Disposal of rMSW in Ireland is achieved by landfilling. There were three active private landfills operating commercially in Ireland in Q4 2022.In addition Ballaghveny Landfill is being operated by Tipperary County Council to deal with waste from a historic permitted site and is also accepting C&D waste to assist with balancing the landfill. **Table 1** below indicates the EPA licence limits, of three licenced landfills and the materials accepted in 2022. It also includes the EPA BMW figures for 2022.

Table1: Residual MSW Landfilled in 2022

Landfill Name	Void Space Licence Limit	Q1 2022 EPA	Q1disposal void space used 2022	Q2 2022 EPA	Q2 2022 disposal Void Space used	Q3 2022 EPA	Q3 2022 disposal Void Space used	Q4 2022 EPA	Q4 2022 disposal Void Space used
Ballyngran	150,000	34,749	34,749	46,066	46,066	42,046	35,174	37,319	37,319
Knockharley	175,000	57,961	57,961	76,758	49,538	32,840	20,508	14,754	12,437
Drehid	120,000	35,485	35,485	40,163	30,824	25,223	20,953	33,412	31,275
Total	**445,000**	**128,196**	**128,196**	**165,228**	**126428**	**100,109**	**76,635**	**85,485**	**81,031**

** Ballaghveny accepted 15,880 tonnes from SVC Rathcabbin that will be included in EPA BMW figures for 2022 but not represented above.*
***Ballynagran includes incinerator bottom ash for disposal and all licence void space capacity was used by the end of 2022*

The total disposal capacity, void space, at landfills for 2022 was projected to be 445,000 tonnes and 412,290 tonnes was landfilled for disposal which was 93% of the projected amount for 2022.

Figure 7 below compares the quarterly trends over the last four years and 2022 shows a significant drop in intake for disposal in Q3 & Q4 in 2022.

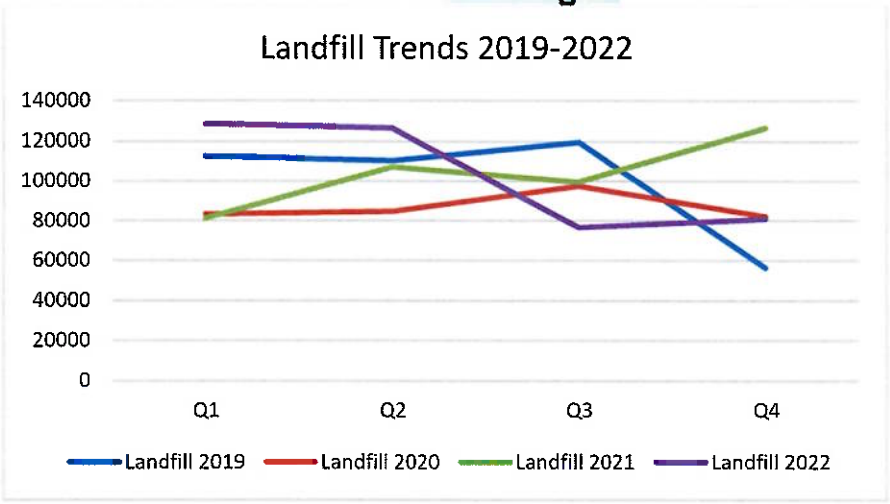

Figure 7: Landfill Trends 2019-2022

Recovery of waste at landfill sites includes the use of material for specified engineering works and daily cover. Recovery at landfills continues to follow disposal trends for 2022 and the intake of these streams at the landfills is illustrated in Figure 8 below.

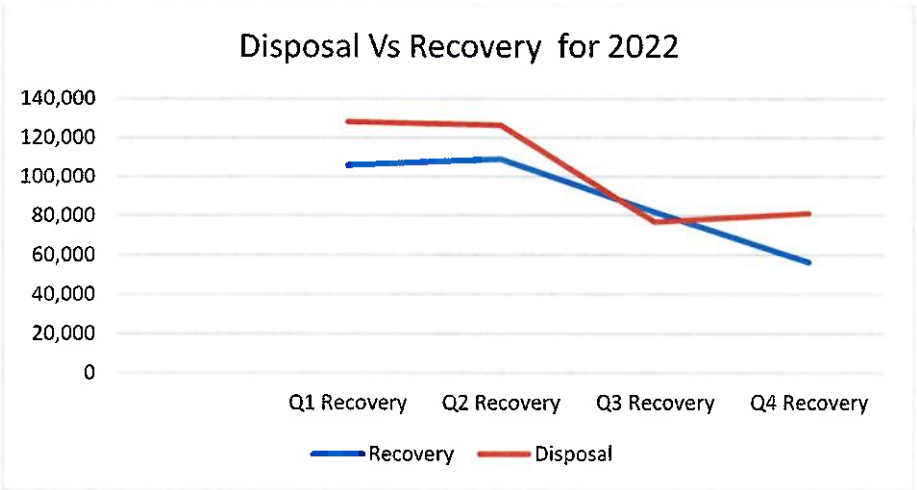

Figure 8: Landfill Disposal Vs Recovery 2022

2.4 Summary of rMSW processed in 2022

Waste generation returned to normal levels of processing in 2022 but as stated, earlier the total quantity of residual waste processed in 2022 was close to but still below the pre-pandemic levels of the baseline year of 2019. The impact of emergency powers in December 2021 prevented carry-over into 2022 and as indicated in earlier reports Q1 2022 showed the lowest processing in the first quarter when compared to Q1 of previous years.

Mitigating against significant waste carry-over from one year to the next will assist with maintaining market equilibrium and ensure that annual capacity remains adequate. It is also noted that imports from Northern Ireland might need to be reduced in the event of increased generation in Republic of Ireland to avoid future regulatory interventions.

Figure 9 below shows the breakdown of waste processing type for rMSW from 2018 to 2022 demonstrating that recovery in Ireland only shows a 3% variance in range from 57-60% and disposal indicates greater variance from 21% to 30% whilst export is 15% to 20%.

The management of waste treatment capacity including the mitigation of carryover would benefit from greater alignment between disposal and export activities to reduce the variances identified.

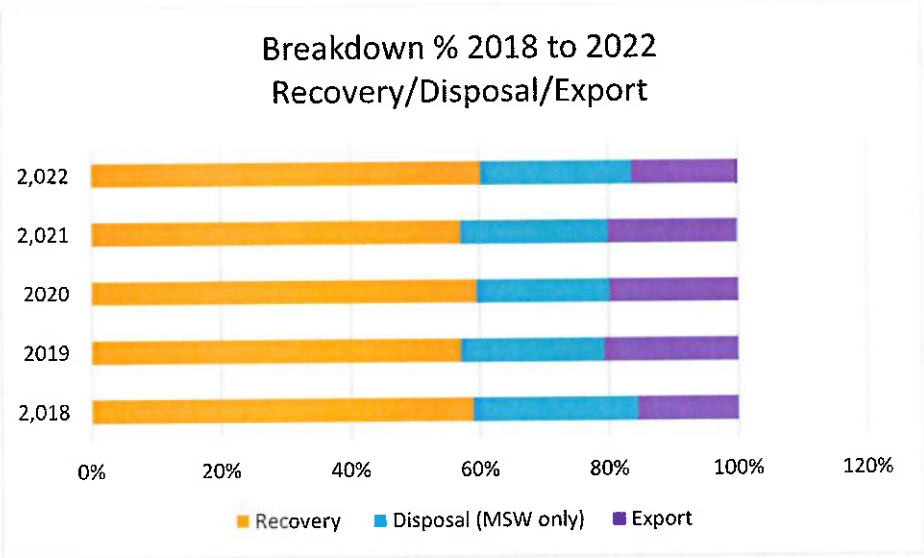

Figure 9: Breakdown of MSW processing in 2018-2022

4.0 Construction & Demolition Waste

According to AECOM's Ireland Annual Review 2022, construction output in 2022 is up 18% from the output of 2021, a year that was impacted by site closures as result of Covid-19 emergency measures. (Ref https://constructionnews.ie/aecom-ireland-annual-review-2022)

The capacity to treat inert Construction & Demolition(C&D) waste appears to be satisfied while the capacity to treat non-hazardous non-inert C&D waste remains a concern in Ireland and the sector is reliant on landfill at inert and MSW landfills as well as export outlets.

End of Waste Decisions (facility specific) for C&D material are assisting with capacity requirements, however difficulties are expected to continue for these streams in 2023 particularly with respect to non-hazardous soils and C&D fines.

Ballaghveny landfill accepted over 15,000 tonnes of contaminated soil in 2022 from the construction sector.

The streamlining of Article 27 processes means that some of the soil and stone streams in particular have exited the waste count and have become by-product.

In 2022 Ireland only exported 451 tonnes of soil type C&D Waste in total. **Table 3** below indicates the trends in export since 2015 and whilst the export options have been reducing over the last three years 2022 is another milestone in terms of the lowest amount of C&D soil type waste exported in any one year.

Table 2: Summary of Tonnage C&D (soil Haz & Non-Haz) waste exported 2015-2022.

C&D Waste Type	2015	2016	2017	2018	2019	2020	2021	2022
17 05 03*	7,202	76,544	87,362	62,180	41,217	43,899	20	10
17 05 04	0	4,045	46,051	161,833	65,510	27,931	0	319
17 05 03*/17 05 04	0	0	6,922	5,896	0	0	3,480	0
17 05 03*/17 06 05*	7,128	6,976	7,155	6,808	4,965	0	0	0
17 05 04/17 06 05*	0	0	0	0	0	0	698	132
Total	**14,330**	**87,565**	**147,490**	**236,717**	**111,692**	**71,830**	**3,500**	**451**

Conversely reviewing the export of C&D Mixed waste to Northern Ireland recorded under EWC 19 12 12 described as fines, the 3433 tonnes exported in 2020 increased to 38,813 tonnes in 2021 and has now reached 130,348 tonnes in 2022. In addition a further 77,006 tonnes of C&D mixed waste was exported to Northern Ireland under EWC 17 09 04, in 2022 increasing from 68,474 tonnes in 2021 and 36,105 tonnes in 2022 Therefore in 2022 exports to Northern Ireland reached a total of **207,805 tonnes of C&D types waste streams.**

5.0 Medical Waste

The RWMPO's monitor Medical Waste arising in the context of Covid 19 and as indicated in the first six months of 2022 there were surges in Medical waste arisings but in the last six months of 2022 medical waste arisings were more consistent. A request from the HSE to extend some emergency support measures as a contingency arrangement to provide additional security was agreed in 2022. A full review of measures will take place in early 2023.

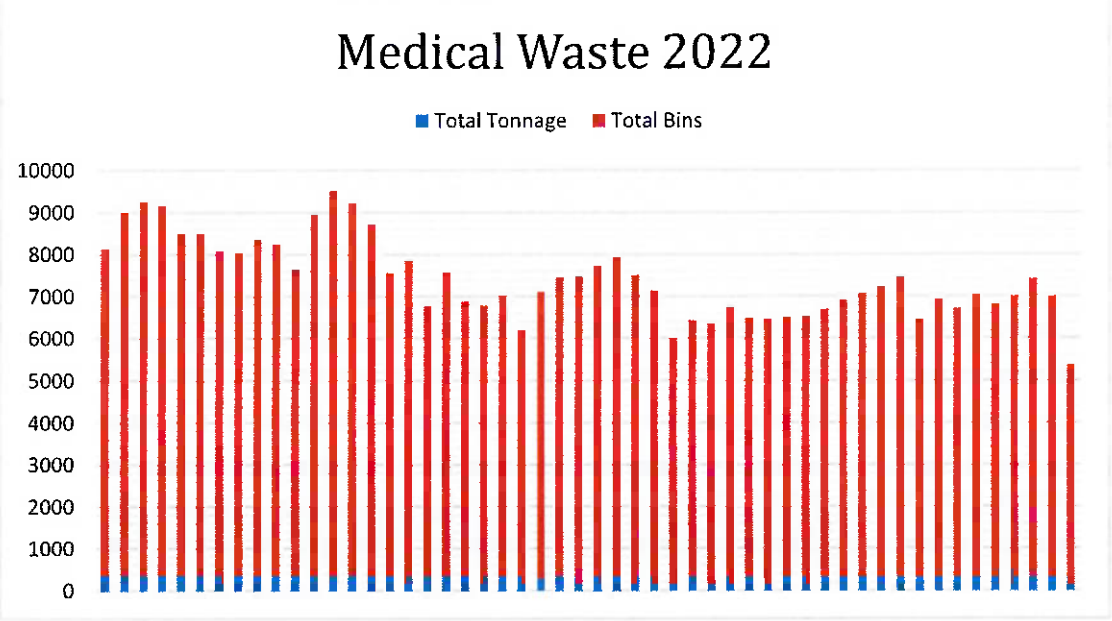

Figure 10: Breakdown of MSW processing in 2018-2022

6.0 Residual MSW Projections 2023

The Regions have updated their projections model for waste generation and recycling. The estimated projections for 2023 take account of restrictions in 2020 / 21 which do present difficulties with the generation of statistics. The WTE plants will also have periods of reduced intake during their preventive maintenance periods as follows:

Covanta:- February 19th – February 28th 2023

- The week of the 12th to 18th of February deliveries will be at 75%. During the period from Feb 19th to Feb 28th there will be 3 days with no deliveries and the remaining days will be at 50% delivery rate.

September 23rd – October 21st 2023(provisional)

- The week of the 17th to 23rd of September deliveries will be at 75%. From September 24th to October 21st deliveries will be at 50% run rate. It is not expected to have any days with no deliveries.
-

Indaver:- Similarly at the Indaver WTE plant in Duleek the preventive maintenance straddles the end of Q1 and beginning of Q2 (26th March to 6th April incl.) with reduced in-take before, during and after this period.

6.1 Market Capacity for 2023

The RWMPOs have worked with the sector to review capacity to be offered to the market in 2023 for processing residual waste. **Table 1** below indicates that a total of 1.817 MT of capacity will be offered to the market for 2023. There are small variances per quarter based on restrictions in WTE plants during maintenance phases.

Table 3: Capacity to Process rMSW in 2023

Processing rMSW in Ireland	Tonnes	Q1	Q2	Q3	Q4
Covanta	600,000	135,000	157,000	159,000	149,000
Indaver-Duleek	185,000	42,000	43,000	50,000	50,000
Cement Kilns	287,000	62,000	67,000	80,000	78,000
Landfills	445,000	114,000	114,000	117,000	110,000
Export	300,000	76,000	74,000	76,000	74000
TOTAL	**1,817,000**	429,000	455,000	482,000	461,000

6.2 Waste Generation Scenarios

The recycling rate has a direct impact on the amount or residual waste capacity required. There are three potential recycling rate scenarios that may impact on the potential arisings of rMSW in 2023.

- Scenario 1 a drop in the recycling rate to 40%
- Scenario 2 the rate remains the same at 41%
- Scenario 3 the rate increases to 42%.

Table 4 below summarises the impact of the scenarios outlined above.

Table 4: MSW generation 2023 show 40%, 41% and 42% recycling rates

	2,023 Scenario 1	2,023 Scenario 2	2,023 Scenario 3
Total MSW (T)	3,255,482	3,255,482	3,255,482
% recycling	40%	41%	42%
Total Recyclate (T)	1,302,193	1,334,748	1,367,302
Total rMSW	1,953,289	1,920,734	1,888,180
Actual rMSW for processing	1,799,289	1,766,734	1,734,180
Capacity to process	1,817,000	1,817,000	1,817,000
Surplus Capacity	**17,711**	**50,266**	**82,820**

In accordance with the EPA statistics for recycling over the last few years the difference between the recycling tonnage and the total waste generated should be rMSW tonnage for processing but our records indicate this is not the case and therefore we have made an adjustment in what we consider actual rMSW for processing to account for this difference.

Table 4 above indicates that at all three recycling rates there is surplus capacity in the Irish market to process residual waste based on the details provided by the sector, however even a slight drop in the recycling rate to 40% makes processing capacity quite limited. It should be noted that the capacity provided to the market is exclusive of capacity provided to Northern Ireland through imports of an estimated 52,000 tonnes.

7.0 C&D Projections 2023

Figure 10 below shows the total C&D Waste growth in Ireland is expected to grow over the next six years if there are no major interventions

Figure 11: C&D WASTE PROJECTIONS

In 2023 the total C&D waste generation is expected to drop below 7 MT if national intervention on Article 27/28 are published.

8.0 Proposed Waste Infrastructure – Summary

The following is the status of proposed national waste infrastructure projects:

Construction to commence

1. **Glanpower Pyrolysis Plant.**
   Planning and waste facility permit in place for 65,000 Tonnes of MSW per annum.
   Project works have not commenced as new investors are now involved.
   Proposed Project completion date 2023...Some enabling works have commenced

Planning

2. **Drehid Waste Management Facility** ; current intake 120,000 TPA MSW
   Waiting on pre-application process to close with An Bord Pleanala

3. **Indaver WTE Facility Ringaskiddy.**
   The planning application has been resubmitted back to An Bord Pleanala following the exhaustion of all legal challenges in Ireland.
   Licence application in place with the EPA and the EPA have requested additional time to statutorily review the application.
   (Initial Planning permission was granted by ABP to process 240,000 TPA and is broken down as up to 200,000 TPA MSW, 24,000TPA Hazardous waste and the remainder is industrial waste)

Licencing-EPA

4. **Knockharley Landfill** current intake 88,000TPA

   Planning granted in 2021. Max solid MSW intake is 188,000 tonnes per annum according to planning conditions.

   Awaiting EPA Licence Review Decision.

5. **Covanta WTE plant Poolbeg.**

   Planning granted in 2021. The site can now accept 690,000 tonnes per annum under planning.

   Awaiting EPA Licence Review Decision.

6. **Castlemungret Cement Kiln**

   Planning in place and a Final licence decision was granted by EPA. An objection to the licence case was heard at the commercial court in May 2022 and a judgement decision in favour of the EPA was made.

-ENDS-