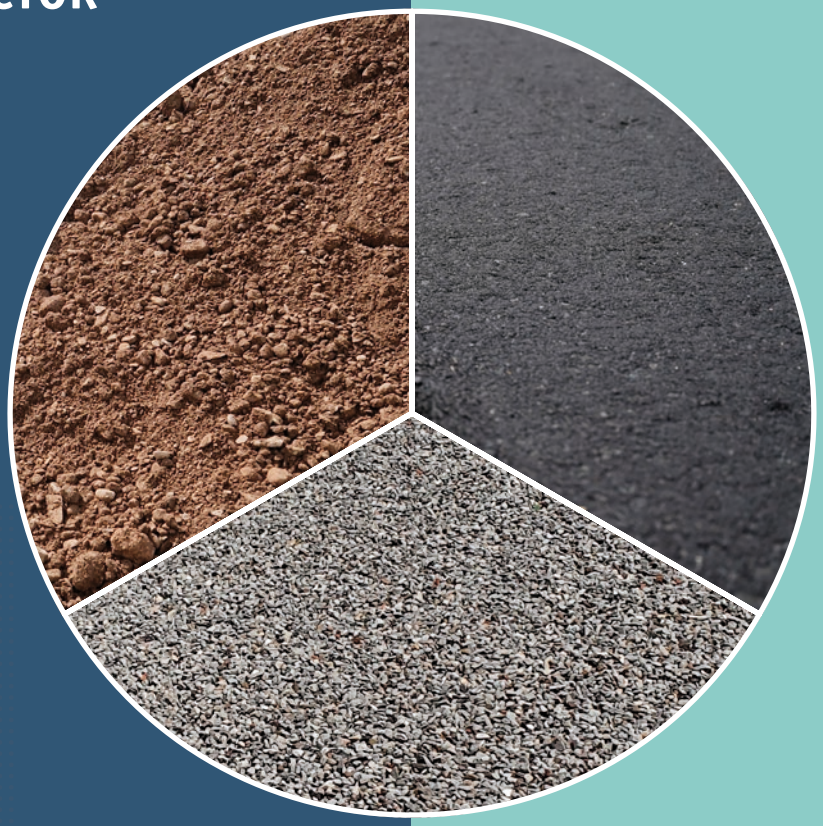
Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

NATIONAL CRITERIA REVIEW: MARKET ASSESSMENT AND REVIEW OF THE NATIONAL CRITERIA FOR END OF WASTE AND BY-PRODUCTS IN THE CONSTRUCTION SECTOR

CIRCULAR INSIGHTS SERIES



Environmental Protection Agency

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The work of the EPA can be divided into three main areas:

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- **Knowledge:** Providing high-quality, targeted and timely environmental data, information and assessment to inform decision making.
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- Office of Environmental Enforcement
- Office of Evidence and Assessment
- Office of Radiation Protection and Environmental Monitoring
- Office of Communications and Corporate Services

The EPA is assisted by advisory committees who meet regularly to discuss issues of concern and provide advice to the Board.



National Criteria Review:
Market assessment and review of the National Criteria for End of Waste and By-Products in the construction sector

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GLOSSARY

Table G1 Glossary of key terms

Term	Definition
BP	By-product
C&D	Construction and Demolition
CE	Conformité Européenne/European Conformity
WFD	European Commission Waste Framework Directive (2008/98/EC)
EDEN	Environmental Data Exchange Network
EoW	End-of-waste
EoW/BP materials	Referring to recycled aggregates, site-won asphalt, and greenfield soil and stone
EPA	Environmental Protection Agency (Ireland)
ND	National Decision
NC	National Criteria
RAP	Reclaimed Asphalt Pavement
RQ	Research Question
SCD	Single Case Decision
TII	Transport Infrastructure Ireland
ToC	Theory of Change

SUMMARY OF FINDINGS AND RECOMMENDATIONS

Ricardo was commissioned by the EPA to conduct a market assessment and review of the three National Decisions introduced in the period October 2023 to August 2024. As the National Decisions are still in their relatively early stages of implementation, it is timely to assess their impact and determine how well the expected benefits to the circular economy, as well as the construction and waste sectors, are being realised.

This study examines whether the standardised regulatory framework for determining when specific secondary material streams automatically attain end-of-waste (EoW) or by-product (BP) status is operating as intended, provided that specified conditions are met, such as testing, traceability, record-keeping, and documentation. In addition, this study also has sought to identify lessons learned and recommendations to support increased circularity in the construction sector.

This summary presents the research findings against each of the Research Questions (RQs) in scope, followed by six recommendations, which are presented in more detail in the rest of the report.

Research findings by question

RQ 01

Have the National Criteria allowed for timelier administrative and operational processes regarding EoW and BP compared to the previous single-case notification system, which required waiting for an EPA determination?

Stakeholders reported that the National Criteria have resulted in faster and more predictable administrative processes when compared to the former single-case notification system. Improvements connected to the EDEN portal and better notification systems are contrasted by the burden of pre-registration activities required for compliance, such as testing, planning permission checks and evidence gathering. However, timeliness seems to be material-specific, with more operational challenges for soil and stone. Evidence shows that less experienced operators require extensive support from the market and that timeliness in the administrative process is moderated by new pressures for local authorities providing clarity on how to navigate the new procedures.

RQ 02

Has the new process (under the National Criteria) been clearer, including record-keeping, verification and authorisation requirements?

Most operators/producers consulted showed a clear understanding of the Regulation 27 and Regulation 28 systems for National Decisions, as well as the policy objectives and requirements of the National Criteria. Although operators find the National Criteria testing requirements to be cumbersome, the time saved compared to the previous single case decision (SCD) system for these materials is appreciated. The number of EoW/BP registrations since the introduction of the National Criteria varies notably depending on the operators consulted. While private sector operators report clearer record-keeping and verification, public sector stakeholders outline possible misuses of the system and some inefficiencies of the portal that should be addressed. Similarly, both public and private stakeholders suggest improvements to site verification and record-keeping.

RQ 03

Have simplified/timelier National Criteria administrative processes allowed operators/producers to reduce costs?

Evidence from operators, industry stakeholders and public authorities suggests that while timelier administrative processes have resulted from the introduction of the National Criteria, which has improved the efficiency in material movement, for example, by reducing waiting periods, they have not delivered clear cost savings to operators. Some stakeholders reported increases in costs for administration, staff training, and compliance risk. However, costs under the SCD were also high; therefore, the positive marginal change in costs attributable to the National Criteria is relatively small. On the public administrator's side there are some operational challenges in carrying out timely enforcement visits to material source sites within the prescribed timeframe.

RQ 04

To what extent have recycled aggregates from construction and demolition waste (e.g., soil and stone, concrete, bricks and ceramics) become more available in the market?

Most stakeholders interviewed indicated that there has been relatively limited availability of recycled aggregates from construction and demolition (C&D) waste in the market, both before and after the introduction of the National End-of-Waste Criteria for Recycled Aggregates. There is consensus that investment in fixed capital to obtain, process, and transport C&D material is key to an increased use of recycled aggregates, but only bigger operators/producers have the means to invest. Despite this need for investment and use of contractor services for processing aggregates to overcome lack of processing facilities, stakeholders indicate that repurposing C&D waste has now become one of the pillars of many firms' circular economy strategies.

RQ 05

To what extent have road planings (site-won asphalt) in the production of consistent and quality road surface products been increasingly reused? To what extent have the National Criteria prevented waste generation and/or reduced construction waste going into landfill (recycled aggregates only)?

Evidence suggests that the National Decision has enabled increased reuse of site-won asphalt, but progress remains modest, uneven, and largely dependent on external standards and client requirements rather than on the decision alone.

This contrasts with the evidence gathered on recycled aggregates, which suggests that although the National Decision has clarified regulatory requirements and facilitated production, utilisation in the market remains relatively low. Ultimately, in both cases, evidence reinforces the idea that the National Decisions' impact has been to provide regulatory certainty rather than to drive new demand.

RQ 06

To what extent has greenfield soil and stone been safely and increasingly reused?

Evidence suggests that the National By-product Criteria for Greenfield Soil and Stone have increased the supply of greenfield soil and stone, with by-product registrations rising between 2024 and 2025. However, actual reuse at a whole-of-market level remains modest. Adoption has been strong compared to other materials, but it is suggested that with further regulatory clarity, incentives, or procurement mandates, utilisation could increase substantially. Any future policy changes would need to consider definitions and practice around the distinction between greenfield and brownfield sites.

RQ 07

To what extent have the National Criteria supported green procurement and/or reduced the carbon intensity of the built environment?

Evidence indicates that the increased interest in secondary materials is driven by broader industry trends, evolving technical standards, and isolated pockets of innovation, rather than by the regulatory framework itself. While the National Decisions enable compliant reuse routes, they have not acted as a driver of green procurement nor materially reduced the carbon intensity of the built environment yet. The primary constraints lie in procurement rules, tendering practices such as omission of circularity outcomes, specification norms, and market structures that continue to favour virgin materials. As a result, the carbon-saving potential remains largely unrealised in the absence of stronger procurement-led demand signals.

RQ 08

How have external factors (e.g. economic cycle, secondary materials market confidence) affected the change in use of BP/EoW products since the introduction of the National Criteria?

Evidence indicates that external factors have played a significant role in shaping how EoW and BP materials have been used since the introduction of the NC. The factor with the strongest external influence is price competitiveness. Production cost differences with respect to primary equivalents reduce competitive advantage and affect their uptake. Similarly, capacity constraints and inconsistencies in enforcement act as external barriers that dampen market penetration. Other relevant factors that shape demand are market confidence and stigma around secondary materials, which lead to limited entry of new firms and a continued reliance on established players.

Recommendations

A list of recommendations is provided in Chapter 7, coupled with detailed justifications for the EPA to consider. These focus on what could be done to strengthen the performance of the three National Criteria analysed, as well as initiatives aimed at increasing circularity within the construction sector.

Recommendation 1:

Review the operation of the EDEN portal to improve usability, data accuracy, and notification processes.

Recommendation 2:

Invest in practical education and develop and update information materials (e.g. how-to guides, updated user documents, and other awareness resources, including various media) to support smaller operators and contractors in navigating National Criteria requirements (e.g. material registrations and statement of conformity) and subsequent opportunities (e.g. ability to move greenfield soil and stone by-product after five working days).

Recommendation 3:

Review EoW usage restrictions (e.g. pollutant limit values) for recycled aggregate (e.g. the 100 m width x 100 m length rule, and the every 2,000 tonne produced testing rule) to ensure ongoing effectiveness.

Recommendation 4:

EPA to work collaboratively with local authorities in expanding training and support for risk-based enforcement activities including examining the stand-still period, addressing producer non-compliance, and ensuring consistency across regions.

Recommendation 5:

Prepare guidance on brownfield soil and stone to identify any areas where the existing definition of greenfield soil and stone in the National Criteria or Explanatory Note may create uncertainty for operators.

Recommendation 6:

Conduct a policy review with relevant partners (e.g. DCEE and LGMA) to explore how the National Criteria and associated EoW/BP materials can facilitate the large-scale use of secondary materials in/from infrastructure projects, including through public procurement.

1. INTRODUCTION AND CONTEXT TO THIS REVIEW

1.1 POLICY CONTEXT

1.1.1 Construction waste in Ireland

The construction sector is a major contributor to Ireland's national waste profile, with construction and demolition (C&D) waste being the country's largest waste stream. In 2023, Ireland generated approximately 9 million tonnes of C&D waste, accounting for more than half of total national waste. Over 80 per cent of this comprised soil and stone, reflecting the large volumes of material excavated during land development and infrastructure projects (EPA, 2025). Historically, this material has been re-used across other construction projects through bespoke decisions, used as backfill (e.g. for quarries), soil recovery facilities or, as a last resort, disposed of in landfills.

Because of its scale, construction waste has been the focus of national efforts to promote circularity in resource use, and is highlighted in key policy frameworks such as Ireland's Waste Action Plan for a Circular Economy (2020–2025), which seeks to reduce waste generation and increase reuse and recycling across economic sectors (Department of Climate, Energy and the Environment, 2020).

The effective regulation of C&D waste has been a significant part of the Environmental Protection Agency's (EPA) administrative workload. The EPA's role includes evaluating case-by-case applications under Articles 5 and 6 of the European Waste Framework Directive (WFD) to determine whether specific material streams could be granted End-of-Waste (EoW) status or be classified as by-products (BP), ensuring environmental protection while supporting circular-economy objectives.

1.1.2 Single Case Decisions under Regulation 27 and Regulation 28

The concept of a by-product was formalised in European legislation through the WFD (European Parliament and Council, 2018). Under Irish law, this concept was transposed through Regulation 27 of the European Union (Waste Directive) Regulations 2011-2020, establishing the conditions under which a material may be considered a by-product rather than a waste (Ireland, 2020).

Historically, if a producer sought to have materials such as soil or stone or site-won asphalt classified as a by-product, they had to submit a notification to the EPA under Regulation 27 (By-Product). Separately, where processed materials such as recycled aggregate required granting of EoW status, producers had to apply under Regulation 28 (End-of-Waste) and wait for a Single Case Decision (SCD). This process involved detailed technical assessment and could take months or even years to conclude, creating uncertainty for producers and discouraging broader market uptake of secondary materials. Operators often reported that decisions were delayed or stalled, limiting their ability to reliably plan reuse activities and integrate secondary materials into supply chains.

1.1.3 Introduction of the National Criteria

In response to these challenges, and to support greater material circularity in the construction sector, the EPA developed and implemented a set of National Criteria (NC) between October 2023 and August 2024. These criteria establish a standardised regulatory framework for determining when specific secondary material streams automatically attain by-product or EoW status, provided that specified conditions are met, such as testing, traceability, record-keeping, and documentation.

The three National Criteria published to date are:

- National End of Waste Criteria for Recycled Aggregates (EOW-N001/2023), which applies to recycled construction and demolition aggregates and enables their classification as end-of-waste,
- National By-Product Criteria for Site-won Asphalt (BP-N001/2023), which allows site-won asphalt (road planings) to be classified as a by-product for use as feedstock in reclaimed asphalt pavement plants, and
- National By-Product Criteria for Greenfield Soil and Stone (BP-N002/2024), which enables soil and stone from greenfield sites to be reused in specific circumstances.

Under these NC, when producers and users meet all specified requirements, the material is automatically granted by-product or End-of-Waste status, eliminating the need for Single Case Decisions by the EPA. By doing so, the EPA's role has shifted from making bespoke determinations towards designing, publishing, and enforcing a consistent regulatory framework that applies broadly across the sector.

The National Criteria were designed to help achieve key goals identified in the *Waste Action Plan for a Circular Economy* (Department of Climate, Energy and the Environment, 2020), including:

- Streamlining the by-product notification and decision-making process, thereby encouraging greater use of the framework by industry and facilitating the prevention of waste generation, which, in turn, can reduce pressure on waste disposal and recovery infrastructure, and
- Securing by-product status for priority material streams, particularly those associated with the C&D sector, so that more secondary materials remain in productive use rather than being lost to disposal.

1.2 FOCUS OF THIS MARKET ASSESSMENT AND REVIEW

This market assessment and review was initiated 12-18 months following the implementation of the three National Decisions. The EPA wanted to take stock of what is and what is not working and identify any lessons that could support increased circularity in the construction sector.

Rather than a formal policy evaluation, this review focuses on identifying and exploring market impacts of the National Criteria compared to market conditions under the previous regulatory system. It also conducts a rapid process evaluation of the three National Criteria identified above, focusing on the experience of operators/producers, and their subsequent commercial and operational responses.[1] To assist in this review, a series of research questions (RQs) were developed and explored in this report.

The market assessment and review are structured in a series of sequential Chapters:

- Chapter 2 outlines the assessment methodology used, including approaches to consultation.
- Chapter 3 details the high-level theory of change established for each NC.
- Chapter 4 conducts a market assessment for recycled aggregates, site-won asphalt, and greenfield soil and stone, which provides a baseline snapshot of how the materials are used in the construction sector in Ireland at present.
- Chapter 5 reports the findings of the research questions in scope and presents three case studies capturing how the construction sector supply chain might be responding to the NC.
- Chapter 6 notes key conclusions from the study.
- Chapter 7 provides recommendations to the EPA on how to strengthen the three National Criteria analysed, as well as initiatives aimed at increasing circularity within the construction sector.

1 Process evaluation refers to the analysis of whether an intervention is being implemented as intended, whether the design is working, and what is working more or less well and why. These types of questions are typically referred to as a process evaluation. (HM Treasury, The Magenta Book: Guidance for Evaluation).

2. ASSESSMENT METHODOLOGY

The EPA's primary aims for this market assessment and review are to:

- Take stock of what is and what is not working so far, and
- Identify lessons to increase circularity in the construction sector.

The scope and methods of this study are summarised below in Table 2-1. As shown below, this study did not cover all waste and material types in the construction sector (e.g. wood, plastics, metals, or mixed materials) or all waste sources (e.g. brownfield soil and stone); rather, it focused on those covered under the National Criteria.

Table 2-1 Scope of coverage for the study

Dimension	Variable	Specification
Scope	Geography	Ireland
	Sector	Construction sector (NACE 41, 42, 43)
	National Criteria	National End of Waste Criteria for Recycled Aggregates (EOW-N001/2023)
		National By-Product Criteria for Site-won Asphalt (BP-N001/2023)
		National By-Product Criteria for Greenfield Soil and Stone (BP-N002/2024)
	Materials	Recycled aggregates
		Site-won asphalt
		Greenfield soil and stone
	Time	2023-2025 (12-18 months post implementation of the National Decisions)
Methods	Data collection methods	Desktop research of secondary sources
		16 stakeholder interviews (operators/producers, industry, public authorities)
		3 case studies of operators and producers

To conduct the market assessment and review, a five-step methodology was designed and agreed with the EPA, which is summarised below.

Task 1: Project inception, scope, and context setting

Firstly, a scope and workplan were agreed with the EPA. Important exclusions from this market assessment and review (namely brownfield materials) were defined, and a stakeholder list for consultation drafted. The EPA also provided access to previous studies and relevant data on construction and demolition waste (SWECO, 2023; CCMA, 2020; Regional Waste Management Planning Offices, 2021).

Task 2: Data collection and stakeholder engagement

Next, market analysis was conducted through desktop research into the markets for recycled aggregates, site-won asphalt, and greenfield soil and stone. Sources included EPA databases such as the Circular Economy Register and published statistics, Eurostat, and industry publications. These secondary sources were synthesised to create an estimate of volumes of materials in the baseline (i.e., present-day) scenario over time. As shown in Chapter 4, the most recent year that data was available was often 2023, which created a limitation on the extent to which the recent evolution of these markets could be compared to the trends before the National Criteria were introduced.

The stakeholder consultation was pursued as the primary data collection method for this study. The EPA provided contact details for approximately 35 individuals across stakeholder groups such as operators/producers, industry associations, and public authorities. They were subsequently contacted, and online interviews were arranged on an 'opt-in' basis depending on the stakeholder's availability within the consultation period (late October 2025 – late January 2026).

A structured topic guide was prepared ahead of consultation consisting of four sections:

- Part 1: Understanding of and experience with the National Decisions
- Part 2: Process assessment and impact on firms
- Part 3: Market and economic impacts
- Part 4: Environmental and sustainability outcomes

The questions in this guide were used as a basis for the interview, with interviewers focusing on the areas in which each stakeholder had most expertise.

Three case studies were also developed based on insights from stakeholder interviews (see Chapter 5). Drafts of these case studies were provided to relevant stakeholders for review to ensure the accuracy of insights captured.

Task 3: Developing a Theory of Change (ToC) for each of the National Decisions

Simultaneously, a ToC was developed for each of the three NC. These ToC captured the inputs, activities, outputs, outcomes, and impacts required or intended with the NC. A detailed discussion of how each set of National Criteria transforms policy into market outcomes has been included in Chapter 3. Feedback from the EPA and stakeholders was used to refine these ToCs and inform the rapid process evaluation, captured in Chapter 5.

Task 4: Rapid process evaluation of the National Decisions

A series of research questions (RQs) were developed to conduct a rapid process evaluation of the NC. These were tailored for the market and commercial impact of each NC. Insights from desktop research and stakeholder consultation were synthesised, including their experiences interfacing with enforcement bodies/ competent authorities and the effectiveness of these decisions; and three case studies were developed (one per decision).

Task 5: Developing recommendations

Lastly, insights from the previous Tasks (T1-4) were synthesised into this report, forming the basis for the development of recommendations on how to improve National Criteria processes, and drive circularity within the construction sector. These recommendations were iterated and discussed with the EPA to ensure their relevance and robustness.

Finally, the research and assessment have limitations, which we have summarised in Box 1 below.

Box 1 Primary research limitations and mitigations

Limiting selection bias in consultation approach

Stakeholder consultations were the chosen method of primary research in this market assessment. A total of 16 stakeholders were consulted, comprising 8 operators/producers, 3 industry associations, and 5 public authorities (see Appendix 1).

While this sample was chosen to complete the market assessment and review in the allocated period, there is a diverse range of market participants in the construction sector that interface with the EoW/BP materials, not all of whom were available for nor represented in the consultation. Over 40 individuals were contacted for consultation, and it is likely that a degree of selection bias occurred in the 16 participants who made themselves available.

Actions were taken to limit cognitive biases to the extent possible as part of the interview and follow-up processes. This included Quality Assurance checks by Ricardo's Subject Matter Experts and EPA on the content and design of questions covered in the interviews, as well as feedback iterations with interviewees regarding their perspectives captured in the case studies (Chapter 5). These limitations have been taken into consideration when triangulating the available evidence to develop answers to the research questions and evaluation conclusions.

Box 1 Primary research limitations and mitigations *(continued)*

Data collation on commercial operations from consultation

Many stakeholders offered quantitative, anecdotal evidence of their experience of running commercial operations using EoW/BP materials. This included details on the unit economics (e.g. margins on secondary materials compared to primary materials) as well as capital investments on recycling plant and equipment. These perspectives, documented throughout Chapter 5, are not comprehensive nor representative, and have not been attained using surveys or broad-reach methodologies.

Nomenclature regarding National Decisions, National Criteria, and landfill

The term *National Decisions* is widely used in the construction/waste industry as shorthand for the National End-of-Waste Criteria Decision and the National By-Product Criteria Decision, which introduced criteria for materials to be classified as a EoW or BP. The term *Single Case Decision* (SCD) refers to individual EPA decisions made under the Regulation 27 and Regulation 28 systems. A Single Case Decision (SCD) is required when no pre-set criteria exist for a material.

For clarity and consistency, this report used the term *National Criteria* as the collective reference for the three EoW/BP criteria introduced in 2023-2024, which allow materials to attain EoW/BP status without requiring an SCD. By extension, EoW/*BP materials* refer to recycled aggregates, site-won asphalt, and greenfield soil and stone managed under these three National Criteria.

Additionally, most stakeholders used the term 'landfill' during consultation as a synonym for 'recovery to land'. The authors note that most soil and stone materials sent to landfill/recovered to land are used in backfill in quarries or for agricultural improvement. Operators reported there to be only one 'typical' landfill (i.e. disposal site) currently operating in Ireland, and it is accepting very few material types (i.e. small volumes of construction waste).

3. DEVELOPING A THEORY OF CHANGE

A theory of change describes the underlying logic of how and why each set of National Criteria could achieve its intended outcomes and impacts. Three separate theories of change were developed as part of this study, one for each NC, detailed below. The causal pathways within each ToC were tested and updated based on feedback from both the EPA and stakeholders during consultation.

3.1 NATIONAL END-OF-WASTE (EOW) DECISION FOR RECYCLED AGGREGATES

The National EoW Decision for recycled aggregates aims to facilitate the safe and efficient reuse of high-quality secondary materials in the construction sector and support new market development and growth.

The main **inputs** to this set of National Criteria include the legislative and regulatory basis for the EoW Decision, and the administrative and enforcement capacity of the EPA and Local Authorities, comprising dedicated staff time, inspection budgets, and data systems. Complementing these are standards, guidance, and templates. The measure also relies on private sector infrastructure and testing capacity. This includes authorised recycling and recovery facilities, crushers, wash plants, transport and testing laboratories, all staffed by qualified personnel. Businesses are expected to maintain documented procedures and records sufficient to demonstrate compliance with the EoW criteria. The primary material input is inert construction waste (e.g. crushed concrete).

Building on these inputs, key **activities** are undertaken by different stakeholders. Producers register material on the EPA EoW Register, conduct acceptance checks including source verification and quality control, and operate material recovery processes at authorised facilities using specified techniques. Quality testing is carried out on a batch and/or frequency basis, in line with the National EoW Decision and associated guidance, including physical testing (e.g. grading, fines content, contaminants) and chemical testing (e.g. leaching and total concentration tests) undertaken by accredited laboratories prior to the issuing of a Statement of Conformity. Recovered materials must achieve the pollutant limit values (PLVs) and physical contaminant limits set out in Part 3 of Annex I of the National EoW Decision (EoW-N001/2023) and must also comply with the applicable European standards for aggregates, including EN 13242 for unbound and hydraulically bound aggregates and EN 12620 where relevant for aggregates for concrete. Producers document compliance in their verified systems, while enforcement authorities – either the local authority or the EPA, depending on the facility's waste authorisation – conduct inspections and enforce corrective actions where necessary.

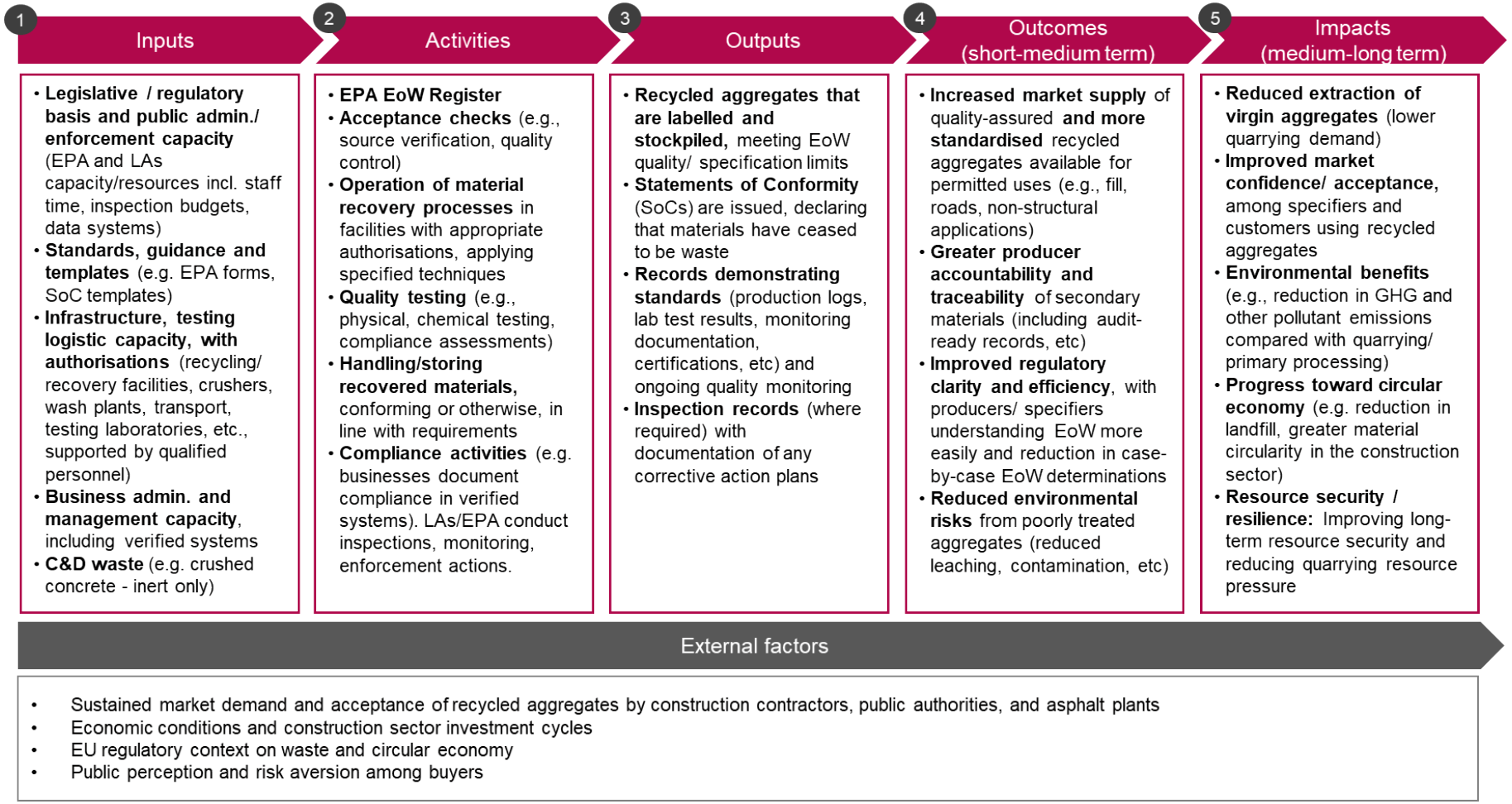
These activities produce tangible **outputs**. Recycled aggregates (e.g. crushed concrete of various sizes) are labelled, stockpiled, and meet EoW criteria as specified in the National Decision. Producers issue a Statement of Conformity confirming that materials have ceased to be waste. Detailed records are maintained, including production logs, laboratory test results, monitoring documentation, and certification records. Inspection records and any corrective action plans are also documented.

The immediate **outcomes** of these outputs include a stable and standardised supply of quality-assured recycled aggregates for allowed uses such as fill, roads, and non-structural applications. Producers are held accountable through traceable, audit-ready records, enhancing transparency across the value chain. Regulatory clarity and efficiency improve as producers and specifiers better understand EoW requirements, reducing the need for ad-hoc, case-by-case determinations. Environmental risks associated with poorly treated aggregates, such as leaching or contamination, are reduced.

Ultimately, the **impacts** of the National Criteria extend across environmental, market, and systemic dimensions. By enabling the compliant substitution of recycled aggregates for primary materials (i.e., increase the use of recycled aggregates for allowed applications), the National Criteria reduce pressure on primary aggregate extraction and associated greenhouse gas (GHG) and other pollutant emissions. The continued production and use of recycled aggregates indicate a displacement effect, insofar as these materials substitute for primary aggregates in the market; that is, if recycled aggregates were not available, primary materials would be used instead. However, the scale of this displacement, and the extent to which it translates into measurable reductions in overall primary aggregate demand, remains influenced by broader factors such as construction activity levels and procurement practices. Market acceptance of recycled aggregates improves, supporting the circular economy through greater material recirculation in construction. The availability of recycled aggregates in the market also enables public bodies to implement greener procurement practices, including specifying and contracting the use of recycled aggregates in publicly funded projects, thereby further driving demand for secondary materials. The measure also strengthens resource security and resilience, helping to mitigate long-term pressure on quarrying resources.

The effectiveness of the Decision is shaped by **external factors**, including sustained market demand and acceptance by contractors, public authorities, and asphalt plants; broader economic conditions and construction sector investment cycles; the EU regulatory context on waste and circular economy; and public perception, including risk aversion among buyers.

Figure 3-1 Theory of Change for the National End-of-Waste (EoW) Decision for Recycled Aggregates



3.2 NATIONAL BY-PRODUCT (BP) DECISION FOR SITE-WON ASPHALT

The National By-Product Decision for Site-Won Asphalt was primarily introduced to facilitate the reuse of reclaimed asphalt pavement (RAP), making the process more straightforward, transparent, and circular, and reducing the volume of waste from road resurfacing activities.

The main **inputs** to these National Criteria include the legislative and regulatory mandate provided by the EPA, together with the agency's administrative capacity, which encompasses staff time, inspection budgets, and digital data systems. Enforcement activities, however, are carried out primarily by Local Authorities, reflecting the type of authorisations under which most facilities operate. Complementary inputs comprise standards, guidance, and templates such as EPA forms and SoCs. The system also depends on physical infrastructure and testing capacity, including authorised RAP plants, transport, and laboratories, all supported by qualified personnel. Producers and end users maintain documented procedures and controls sufficient to demonstrate compliance with the National Criteria, while the primary material input is site-won asphalt generated from road construction and pavement activities.

Building on these inputs, key **activities** are undertaken primarily by operators and authorities. Producers register each batch on the EPA BP Register, conduct acceptance checks including source verification and quality control, and operate recovery processes at RAP plants using specified techniques. Quality testing is undertaken on a batch and/or frequency basis, in line with the BP Decision and relevant guidance, including physical testing (such as grading, binder content, and contamination checks) and, where required, chemical testing to confirm the absence of hazardous constituents. Recovered (site-won) asphalt by-product is handled, stored (including any satellite storage under the RAP plant's management system), and segregated in accordance with BP requirements to preserve material integrity and traceability prior to and upon acceptance at the RAP plant. Following processing at the RAP plant, reclaimed asphalt (intermediate product) is controlled and tested in line with the specific quality requirements set out for recycled asphalt and for the subsequent bituminous mixtures (Ireland, 2023). Businesses document compliance in their verified systems, while Local Authorities—acting as the primary competent enforcement authorities for BP activities—conduct inspections, monitoring, and enforcement where required.

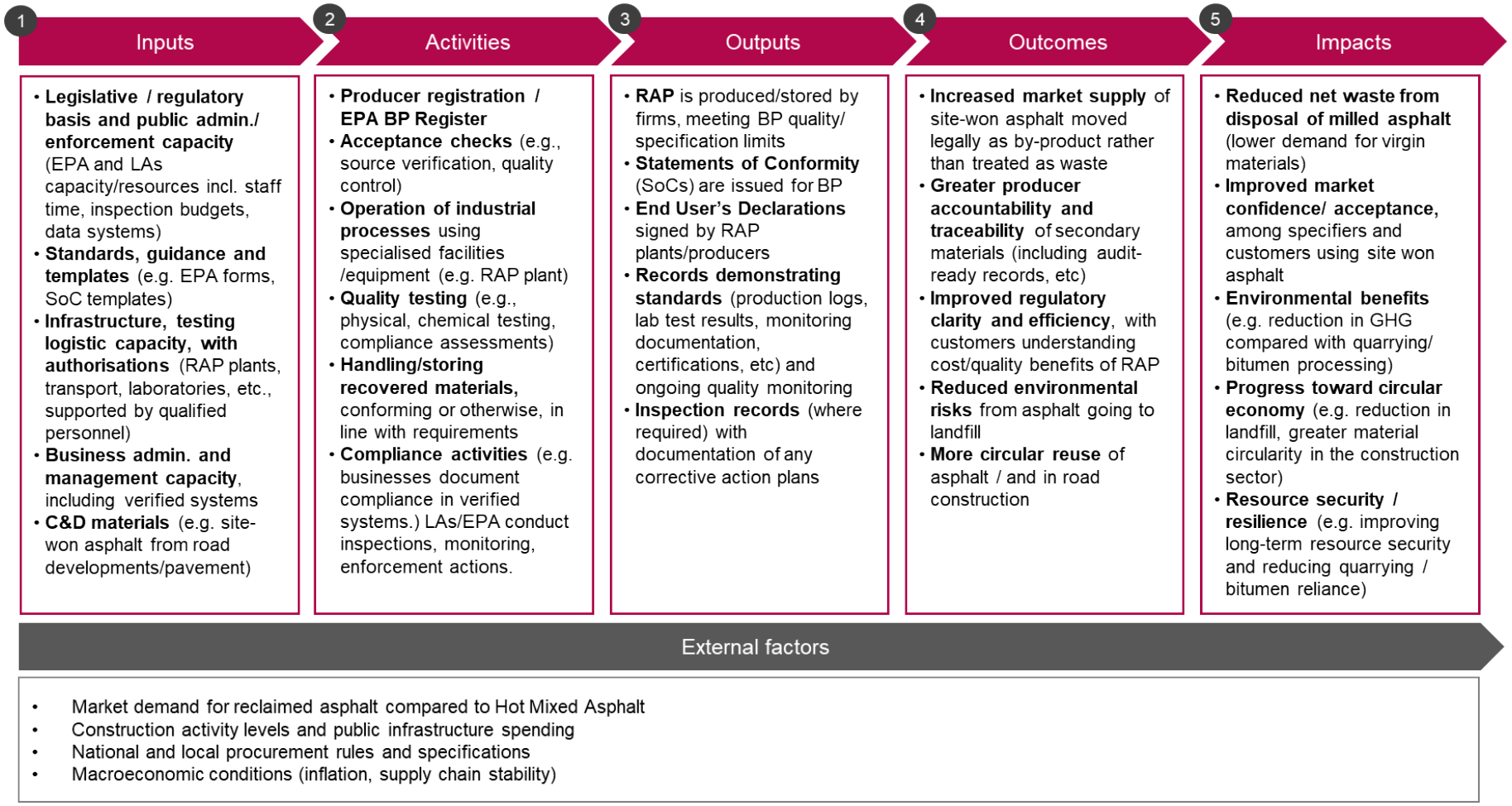
These activities generate **outputs**. Reclaimed asphalt is produced and stored by firms in compliance with BP quality and specification limits. A Statement of Conformity is issued for each eligible batch, and End User Declarations are signed by the RAP plant operator to formalise reuse agreements. Detailed records (including production logs, laboratory test results, monitoring documentation, and certifications) support ongoing quality assurance. In addition to local authority oversight, the National Standards Authority of Ireland (NSAI), acting as the national standards body and a notified conformity assessment body for the I.S. EN 13108 series, undertakes product auditing and certification activities to verify compliance with the relevant bituminous mixture standards. Local authorities maintain inspection records relating to site visits, document reviews, and checks of record-keeping systems, and may require corrective actions where non-compliance with BP conditions is identified.

The immediate **outcomes** of these outputs include greater incorporation of site-won asphalt into new asphalt mixes, with RAP content now allowed at significantly higher levels (up to approximately 70 per cent in certain applications), compared to historical limits of around 30 per cent. This enables site-won asphalt to be reused as a by-product rather than managed as waste, improving material efficiency and reducing reliance on virgin inputs. Producers are accountable through traceable, audit-ready records, which enhances transparency and confidence across the supply chain. Regulatory clarity is improved, enabling customers and contractors to understand the cost and quality benefits of using RAP. Environmental risks associated with landfill disposal are reduced, and the circular reuse of asphalt within road construction increases.

Ultimately, the **impacts** extend to environmental, market, and systemic dimensions. By increasing the allowable proportion of RAP in asphalt mixes, the National Criteria contribute to reduced demand for virgin bitumen (a refined product derived from crude oil with a high carbon and energy intensity) as well as reduced demand for primary aggregates. This delivers environmental benefits through avoided primary raw material extraction, reduced refining and processing emissions, and lower transport requirements. Market confidence in reclaimed asphalt also improves, which supports circular practices in construction and reduces GHG emissions overall, when compared to alternatives (primary material production and bitumen processing). The measure also strengthens Ireland's progress toward a circular economy and enhances long-term resource security and resilience.

Again, the success of the BP Decision depends on several **external factors**, including the allowable percentage of RAP in asphalt mixes (which has increased from historical limits of approximately 30 per cent to up to 70 per cent in certain specifications); sustained market demand for reclaimed asphalt relative to virgin hot-mix asphalt across different regions; levels of construction activity and public infrastructure investment; national and local procurement rules and specifications; and broader macroeconomic conditions such as inflation, energy prices, and supply chain stability. Importantly, the existence of the National Criteria also supports greater use of RAP in new asphalt mixes by giving public authorities the assurance needed to specify RAP in road-maintenance and resurfacing contracts, thereby helping to drive demand.

Figure 3-2 Theory of Change for the National By-Product (BP) Decision for Site-Won Asphalt



3.3 NATIONAL BY-PRODUCT (BP) DECISION FOR GREENFIELD SOIL AND STONE

The National By-Product Decision for Greenfield Soil and Stone was introduced to enable the safe and lawful reuse of uncontaminated soil and stone from greenfield construction sites, in circumstances where the material meets the conditions to be regarded as a by-product rather than waste. The Decision aims to prevent waste being generated by ensuring that suitable soil and stone can be used directly at another development site while maintaining environmental protection and supporting circular resource use.

The **inputs** underpinning this Decision include the legislative and regulatory mandate provided by the EPA, together with administrative and enforcement capacity. This includes staff time, inspection budgets, and digital data systems. EPA guidance and templates (such as EPA forms and SoCs) support consistency and traceability. Other inputs include physical infrastructure and screening/testing capacity (where needed), including transport, all supported by qualified personnel. Producers comply with the documentation and traceability requirements set out in the National Criteria, including issuing SoC, receiving End-User Declarations, and maintaining the required records, while the primary material input is uncontaminated soil and stone from greenfield construction sites.

These inputs enable a series of **activities** carried out by producers and authorities. Producers register each batch on the EPA BP Register and confirm that the material originates from a greenfield site, using map reviews, site assessments, environmental screening, and, where needed, contaminant testing to verify that the soil and stone is uncontaminated and suitable for direct use. Businesses maintain compliance documentation in verified systems, and local authorities conduct inspections, monitoring, and enforcement actions to ensure adherence to the National Criteria.

The activities generate tangible **outputs**. Greenfield soil and stone are produced and transferred in compliance with the National Criteria/conditions. Statements of Conformity are issued for each eligible batch, along with an End-User Declaration provided by the end user. Comprehensive records, including production logs, environmental screening results, registration documentation and End-User Declarations support ongoing quality assurance and are maintained on-site to demonstrate regulatory compliance.

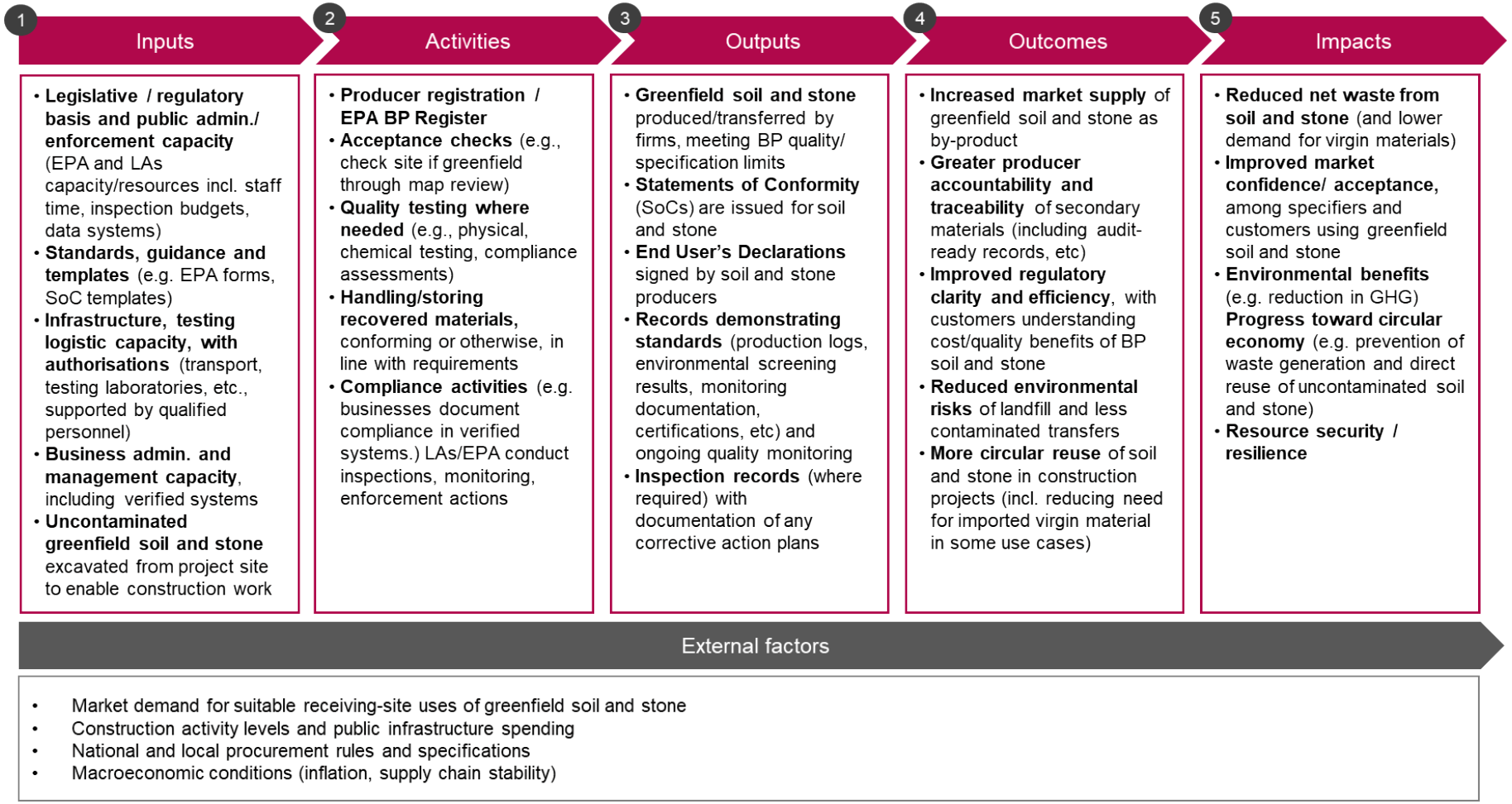
In the short-to-medium term, these outputs lead to several **outcomes**. The market supply of greenfield soil and stone increases, while producer accountability and traceability improve through audit-ready records. Regulatory clarity is enhanced, enabling customers and contractors to understand the cost and quality benefits of greenfield soil and stone. Environmental risks are reduced as the National Criteria facilitate direct transfer and reuse instead of sending material through recovery facilities; and risks are further reduced by ensuring that only uncontaminated soil and stone from undeveloped land can be designated as by-product, preventing unsuitable or contaminated material from being transferred to receiving sites. As a result, the circular reuse of greenfield soil and stone in construction and land-development projects is expanded.

Over the longer term, the **impacts** extend across environmental, market, and systemic dimensions. Net waste from greenfield soil and stone is reduced, lowering demand for virgin material. Market confidence in greenfield soil and stone grows, supporting broader acceptance among specifiers and construction clients. Environmental benefits arise primarily from prevention of waste generation and direct reuse of uncontaminated soil and stone (e.g., for landscaping or land reprofiling), which can avoid additional handling steps and transport movements associated with waste recovery or disposal routes. Where by-product soil and stone is used as suitable fill at receiving sites, it can reduce the need to procure imported virgin materials, thereby lowering demand for newly sourced fill in those applications. Collectively, these effects support Ireland's circular-economy objectives by keeping materials in productive use and streamlining lawful reuse pathways.

The success of the National Criteria depends on several **external factors**, including sustained market demand for suitable receiving-site uses of greenfield soil and stone, levels of construction and land-development activity, and effective coordination between source and end-user sites. Practical considerations such as haulage capacity and transport costs (which may be influenced by fuel prices or wider economic conditions) also affect the feasibility of transferring material for reuse. When these factors are favourable, the Decision helps embed a more resource-efficient and circular approach to soil and stone management across Ireland's construction sector.



Figure 3-3 Theory of Change for the National By-Product (BP) Decision for Greenfield Soil and Stone



4. MARKET CONDITIONS FOR EOW AND BP MATERIALS

This Chapter presents an assessment of the market conditions for recycled aggregates, site-won asphalt, and greenfield soil and stone before and after introduction of the NC. Each subsection outlines the material's key characteristics, annual production or consumption volumes, historical patterns of reuse or disposal, and the underlying rationale for regulatory intervention. Tables are provided at the end of each subsection estimating the current (or most recent) material volumes.

Importantly, secondary materials are made up of different grades/qualities/sizes and compete in the construction market against primary/virgin materials. As a result, each material category (e.g. recycled aggregates) is often comprised of multiple individual products, each with their own market dynamics. These factors are further explored through stakeholder consultation, detailed in Chapter 5.

4.1 RECYCLED AGGREGATES

4.1.1 Product overview

Aggregates are granular materials widely used in construction, including for concrete, mortar, asphalt, road base, drainage layers, and other construction products. Aggregates can be produced from natural resources (e.g. sand, gravel, and crushed rock), or alternatively they can be obtained by recycling materials previously used in construction (e.g. crushed asphalt and concrete) (SWECO, 2023).

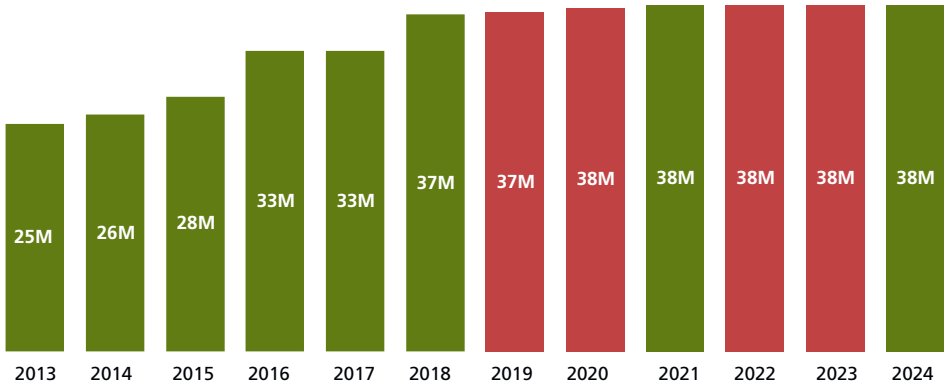
Aggregates are crushed, screened, and filtered using specialist capital equipment to make them fit for reuse. Then they are divided by size and quality, suitable for the end application. For example, smaller sized aggregates are ideal for pathways and driveways, while larger sizes are better suited for drainage applications (Armstrongs, 2025). Recycled aggregates are most used in low-grade, unbound applications (e.g. drainage), although they must still comply with the relevant technical standards, including EN 13242 for unbound aggregates and the performance requirements set out in TII's Series 800.

4.1.2 Volumes and market dynamics

The baseline demand for all aggregates (and especially 'virgin' materials) in Ireland was strong even before the adoption of the EoW NC. The Irish Concrete Federation (2025) puts aggregate demand at approximately twice the average demand across other EU countries, equivalent to 11 tonnes per capita in Ireland, compared to 6 tonnes per capita across the EU (Irish Concrete Federation, 2025).

In 2023, aggregate production in Ireland was approximately 38 million tonnes (Irish Concrete Federation, 2024) (Figure 4-1), with around 500 quarries extracting natural materials and four facilities holding an EoW decision from the EPA for the production/processing of recycled aggregate (SWECO, 2023).

Figure 4-1 Annual aggregates production in Ireland 2013-2024 (tonnes)

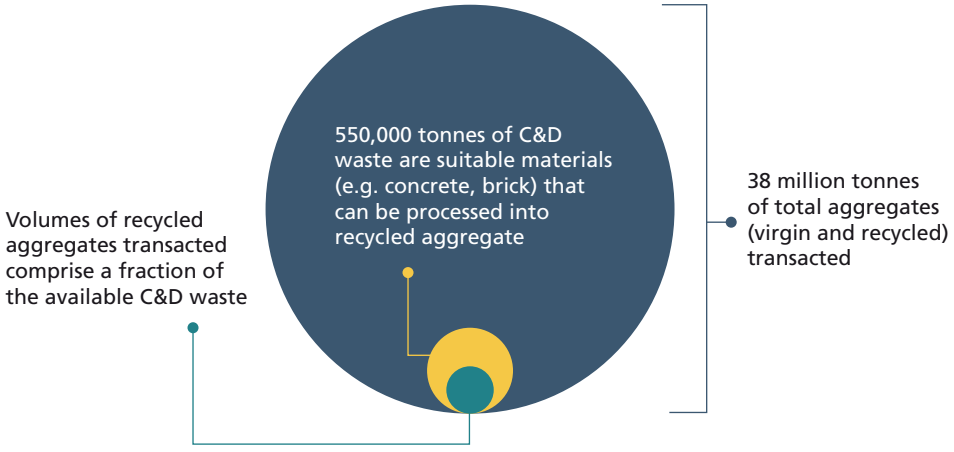


Source: 2013-2018 period data from (Irish Concrete Federation, 2019), 2021 data from (SWECO, 2023). Figures for 2019, 2020, 2022, 2023 and 2024 data are from (Irish Concrete Federation, 2024).

The National End-of-Waste Criteria (EoW-N001/2023) was adopted in September 2023, providing a clear legal framework for aggregates to be reused/recycled, rather than classified as waste. However, the current share of recycled aggregates as a proportion of total aggregates in the market is low (as expected).

As a proxy for the volume of recycled aggregates, among the 8.9 million tonnes of total construction and demolition (C&D) waste generated in Ireland, only about 11 per cent was recycled. Of the total recycled waste (i.e. 950,000 tonnes), materials relevant to recycled aggregates including concrete, brick, tile, gypsum, bituminous mixtures, soil, stones, dredging spoil, and mixed C&D waste, amounted to only 550,000 tonnes (EPA, 2025). Considering that these 550,000 tonnes may include material recycled for other purposes, the recycling rate remains very low compared to the 38 million tonnes of virgin materials consumed (Figure 4-2).

Figure 4-2 Market for aggregates (2023 and 2024 estimates)



The relatively limited production and use of recycled aggregates may be partially attributed to the challenges that recycled aggregates faced in obtaining EoW status. Prior to the adoption of National Criteria EoW-N001/2023, EoW status could only be granted through SCDs and the associated lengthy approval processes. Until such approval was obtained, the material remained classified as waste, subject to all relevant waste authorisations for its production, handling, transport, and storage. This resulted in high administrative burden and delays due to the need for multiple SCD approvals for different operators and material classes, limiting the collection and utilisation of available C&D waste. These perspectives are further explored in Chapter 5.

In theory (and at a unit-economic level), there is strong economic potential for the use of recycled aggregates at scale when the marginal cost of processing is lower than the marginal cost of sourcing virgin materials. Further, for comparable aggregate specifications and applications (e.g. where either virgin or recycled materials are capable of being used in drainage), the market prices of recycled and virgin aggregates are similar. For virgin aggregates, 'general fill' or '6F2' material is typically priced between EUR 6-10 per tonne (SWECO, 2023). Similarly, recycled aggregates for general unbound fill costs EUR 4.75-10 per tonne (SWECO, 2023).

In the supply chain for creating recycled aggregates, producers receive gate fees for accepting waste materials. While gate fees vary across material types and geography (and are subject to commercial negotiations), this commercial arrangement offers incentives for producers to accept and process material into recycled aggregates compared to the traditional sale of virgin aggregates (SWECO, 2023). These incentives are further enforced by increasing waste levies on backfilling/landfill (discussed further in Chapter 5).

According to data from the EPA's publicly available End of Waste Register, since November 2023, 77 registrations from 51 individual operators were made to classify recycled aggregates as an EoW under the NC.

Table 4-1 Baseline aggregates volumes

Material	Annual production	Year	Description/commentary
All aggregates	38 million tonnes	2023	Consisting primarily of virgin stone production
Recycled aggregates	~550,000 tonnes	2023	Proxy estimate based on volume of recycled C&D waste available to become recycled aggregates

4.2 SITE-WON ASPHALT

4.2.1 Product overview

Site-won asphalt refers to asphalt recovered from pavement layers during construction or maintenance (often called 'road planings' – see Box 2 below), as well as rejected or surplus asphalt from paving operations (NSAI, 2017). Once this material is processed in an asphalt plant, it becomes reclaimed asphalt pavement (RAP), which can then be incorporated into new bituminous mixtures (NSAI, 2017). Due to the public nature of much of these capital works, management of planings generally falls under the responsibility of local authorities or other state-owned developers.

Typically, road planings are used in one of three ways:

- First, material can be transported to dedicated RAP plants for bound applications, where the bitumen (functioning as a binder) is reactivated during hot or warm recycling. In 2023, Ireland operated 44 stationary asphalt plants, with 24 equipped for hot and warm recycling (EAPA, 2025). Under Transport Infrastructure Ireland (TII) specifications, up to 70 per cent RAP may be incorporated into binder and base courses, while top surface layers of roads are prohibited from RAP use (The Institute of Asphalt Technology, 2023). Historically, the TII limit was 30 per cent RAP in hot asphalt mix due to quality concerns, but in 2023 TII updated specifications to reflect major advances in recycling technology and a strong policy shift toward sustainability and circular economy objectives (Transport Infrastructure Ireland, 2023).
- Second, crushed and screened reclaimed asphalt aggregates can be repurposed as a substitute for virgin aggregates in applications such as unbound granular layers, foundation material, fill, or road base (Regional Waste Management Planning Offices, 2021). However, as asphalt contains valuable (and relatively expensive) bitumen content (representing 60-65 per cent of asphalt pavement production cost) the unit economics of recycling typically favour processing it in an asphalt plant for incorporation into new RAP mixes rather than using it solely as a general aggregate (Regional Waste Management Planning Offices, 2021).
- Third, if reuse is not feasible, material must be managed as waste. Asphalt is a bituminous material and may contain hazardous substances like coal tar and where this is the case the material must be classified as a hazardous waste. In such cases, road planings must be treated or disposed of at an appropriately authorised waste facility (Regional Waste Management Planning Offices, 2021; CCMA, 2020).

Before the NCs were introduced, both bound and unbound uses of site-won asphalt required an SCD from the EPA to confirm by-product status under Regulation 27. This case-by-case approach created a significant backlog of applications, which in turn delayed road projects (Regional Waste Management Planning Offices, 2021). The national by-product criteria, BP-N001/2023, introduced in October 2023, set out the criteria under which site-won asphalt can be designated as a by-product without requiring an SCD, where used in RAP plants.

Box 2 Asphalt nomenclature and processing differences

Technical difference between site-won asphalt and road planings

Under the National By-Product Criteria for Site-Won Asphalt (BP-N001/2023), site-won asphalt is the material generated during pavement developments (e.g., road maintenance/resurfacing) "in the form of milled asphalt road layers or as slabs ripped up from asphalt pavements." The Criteria apply where this material is destined for use at a Reclaimed Asphalt Pavement (RAP) plant to manufacture bituminous mixtures in accordance with the I.S. EN 13108 series. This makes it suitable for bound applications, such as hot or warm recycling into new asphalt mixes, where the binder can be reactivated.

The term 'road planings' refers to milled layers taken from existing roads during resurfacing. These often come from older pavements and can contain mixed materials or hazardous substances like coal tar. This variability means planings usually require testing and may be limited to unbound applications (e.g., subbase layers) or sent to authorised facilities for processing before reuse. If contamination is present, they must be managed as waste under waste regulations.

For simplicity, and to align with terminology used in consultation, this report uses the terms interchangeably where it is most suitable for the context.

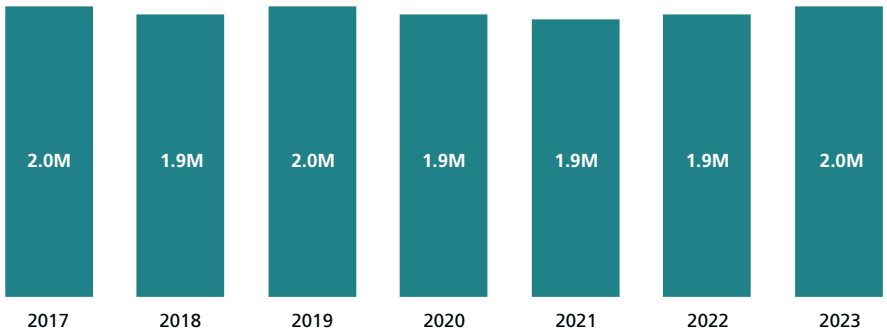
4.2.2 Volumes and market dynamics

Ireland's annual asphalt production volumes are driven by rising capital spending, especially on major public road infrastructure programmes. In March 2025, the Department of Transport (2025) allocated EUR 633 million for the national roads programme, including:

- EUR 502 million in Exchequer Capital funding through Transport Infrastructure Ireland (TII)
- EUR 98 million sourced via Public-Private Partnerships
- EUR 33 million to local authorities for national road maintenance

Asphalt production has been consistent over the period from 2017 to 2023 (Figure 4-3). On the demand side, approximately 2.0 million tonnes of hot and warm mixed asphalt (including product made from virgin materials and RAP) was produced in Ireland in 2023 (EAPA, 2025).

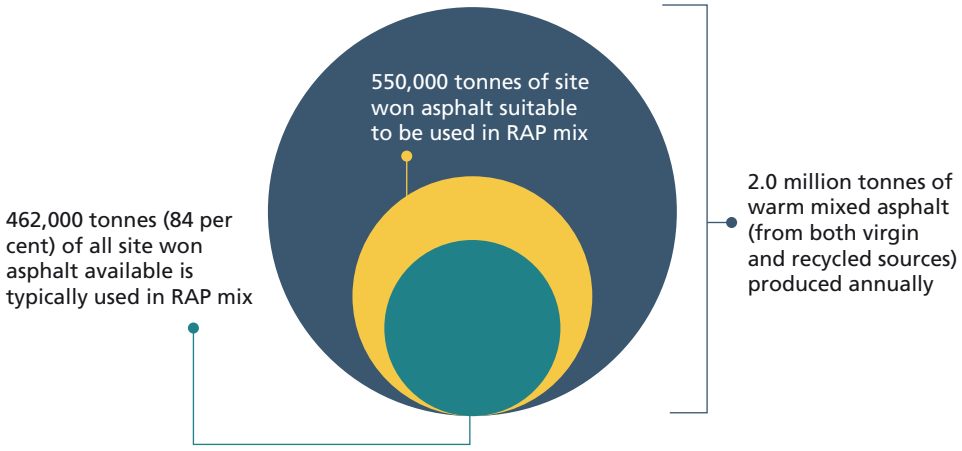
Figure 4-3 Production of hot and warm mix asphalt in Ireland (2017 to 2023 (tonnes))



Source: 2017-2023 period data from (EAPA, 2025)

On the supply side, the volume of site-won asphalt generated was estimated at 550,000 tonnes (EAPA, 2025). Almost all of this (>99 per cent) was of a quality suitable to be used in RAP mix. However, data from EAPA indicates that only 84 per cent was estimated to have been reused or recycled, while the remainder was sent to landfill or other applications (see Figure 4-4). Importantly, these figures are a high-level estimate of the state of the market circa 2023, using data sources from a range of years which do not consider the fluctuation in volumes over time, nor the lag between planings being generated from construction works and RAP mix being used in new asphalt.

Figure 4-4 Market for site-won asphalt in 2023



Since the introduction of the NC, data from the EPA's publicly available By-Product Register show that since 2024, 698 registrations (not including registrations which were subsequently deregistered) were made to classify road planings as a BP (EPA,2025). These came from 46 developers, registering a total volume of 306,865 m^3 (i.e., around 700,000 tonnes)[2] for 2024 and 2025. Analysis of the register shows the top 5 producers of site-won asphalt comprised 85-95 per cent of the market (see Table 4-2). Between 75 and 85 per cent of these volumes were from two firms, Roadstone and Breedon Materials, showing significant market concentration.

Table 4-2 Top 5 firms for registration of BP road planings in 2024 and 2025

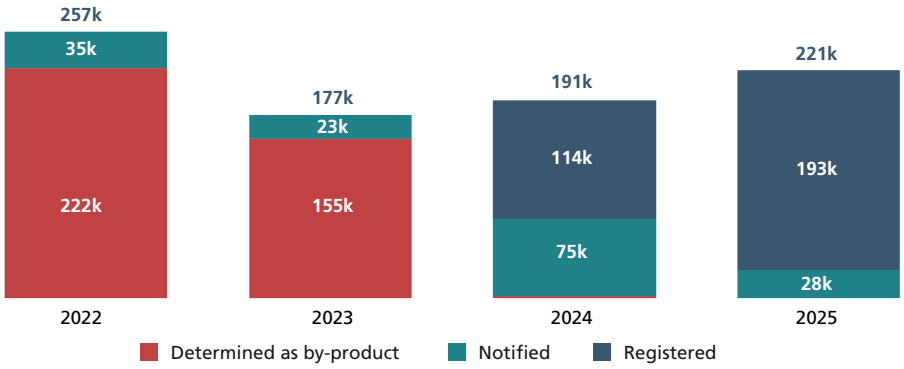
#	Firm	Registered (m^3)	Share of total registered volume
2024			
1	Roadstone Limited	49,998	44%
2	Breedon Materials Limited	47,116	41%
3	Siac Bituminous Products Limited	8,243	7%
4	Mitchell Macadam Limited	2,692	2%
5	GMC Utilities Group Limited	1,518	1%
	Total of top 5 contributors	**109,567**	**95%**
2025			
1	Breedon Materials Limited	103,153	54%
2	Roadstone Limited	39,759	21%
3	Clonmel Enterprises Limited	7,668	4%
4	Siac Bituminous Products Limited	6,141	3%
5	Canniffe Plant And Civil Limited	5,350	3%
	Total of top 5 contributors	**162,070**	**85%**

Source: EPA By-Product Register

2 Volume-to-tonnage conversion is based on the standard formula: tonnes = m^3 × density. The registered volume (306,865 m^3) was converted using a typical bulk density range for reclaimed asphalt of 2.2–2.4 t/m^3 (consistent with standard asphalt density references). This yields an estimated mass of approximately 0.7 million tonnes.

Further to the large uptake in site-won asphalt BP registrations from large firms, there has been a noticeable transition from SCDs under the Regulation 27 system to BP registrations under the National Criteria. Figure 4-5 shows the transition from planings volumes determined to be by-products through SCDs to registrations under the National Criteria (from 2024 onwards). While there are limited data points, BP registrations (by volume) increased by 68% over the period 2024-2025.

Figure 4-5 Volume of road planings/bituminous materials registered 2022-2025 (m^3)



Source: EPA By-Product Register

Table 4-3 Baseline site-won asphalt volumes

Material	Amount	Year	Description
Site-won asphalt generated	550,000 tonnes	2022	Estimated by EAPA
Reclaimed asphalt available to be used by the asphalt industry	550,000 tonnes	2022	Estimated by EAPA
Asphalt reused or recycled	462,000 tonnes	2022	Estimated by EAPA (84% reused or recycled)
Road planings and bituminous materials determined as by-product	222,000 m^3	2022	As reported in EPA by-product register
Road planings and bituminous materials determined as by-product	155,000 m^3	2023	As reported in EPA by-product register

4.3 GREENFIELD SOIL AND STONE

4.3.1 Product overview

Greenfield soil and stone refers to clean, uncontaminated earth and natural rock generated during construction activities on undeveloped land, such as site preparation or infrastructure works. This material typically consists of natural components including topsoil, subsoil, sand, gravel, and clay. Greenfield sites are areas that have not been previously developed and are free from pollutants or hazardous substances.

Brownfield soil and stone is outside the scope of the National Criteria addressed in this report.

Typically, any excess greenfield soil and stone generated during a construction project is reused on the original site (e.g. to reshape verges or for landscaping purposes).

Prior to the introduction of the National Criteria, if soil and stone were to be removed from the site, there were two options:

- The material is classified as waste. This required costly handling and treatment requirements and mandated disposal at an authorised waste facility (CCMA, 2020). While greenfield C&D waste was previously exempt from the recovery levies, under the Waste Management (Landfill Levy) (Amendment) Regulations 2024, C&D waste is now subject to a waste recovery levy of EUR 10 per tonne when recovered at soil recovery facilities (Department of Climate, Energy and the Environment, 2025).
- Alternatively, a notification for greenfield soil and stone as a by-product could be submitted under the SCD system (CCMA, 2020). This process also required significant resources, including a minimum lead time of 10 weeks from the submission of the notification to the EPA, during which the material needed to be stored on site (CCMA, 2020). Preferably, the notification would be submitted, and determination sought from the EPA in advance of the material being generated. As mentioned in Chapter 1, in practice SCDs usually took many months for determination.

4.3.2 Volumes and market dynamics

In 2023, Ireland generated a total of 9 million tonnes of construction and demolition waste, of which 7.35 million tonnes (81 per cent) comprised soil and stone (EPA, 2025). These volumes arise from a mix of excavation activities, but the EPA does not distinguish between greenfield and brownfield sources in its reporting.

The National Criteria BP-N002/2024, adopted in 2024, established a legal framework allowing greenfield soil and stone to be classified as a BP.

Data from the EPA's publicly available BP Register, indicate that during 2024 and 2025, 540 registrations were made to classify greenfield soil and stone as a BP. These came from 226 developers who registered soil and stone movement across 465 sites. In total, 5.3 million m^3 were registered, with the top five producers comprising 33-44 per cent of the market (Table 4-4).

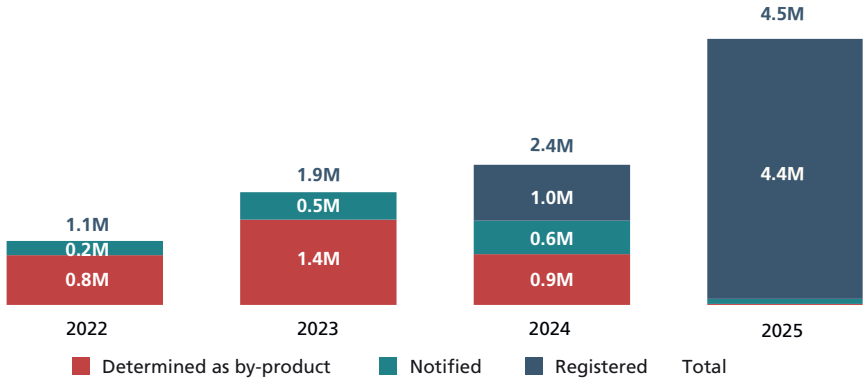
Table 4-4 Top 5 firms for registration of BP soil and stone

#	Firm	Registered (m^3)	Share of total registered volume
2024			
1	John Paul Construction Limited	160,000	17%
2	Westin Homes Limited	100,000	10%
3	Murnane & O' Shea Ltd	70,250	7%
4	O Flynn Group	50,000	5%
5	Coom Construction Limited	50,000	5%
	Total of top 5 contributors	**430,250**	**44%**
2025			
1	O Flynn Group	582,625	13%
2	Glenveagh Homes Limited	231,678	5%
3	Brightland Limited	219,984	5%
4	Rossmore Civils Limited	200,000	5%
5	Wills Bros Ltd	200,000	5%
	Total of top 5 contributors	**1,434,287**	**33%**

Source: EPA By-Product Register

Volumes of greenfield soil and stone being transferred as a by-product have increased significantly between 2022 and 2025 (Figure 4-6). Before the introduction of the National Criteria, there was strong growth in SCD determinations, rising from 0.8 million m^3 in 2022 to 1.4 million m^3 in 2023. While there are limited data points, by-product registrations (by volume) quadrupled between 2024 and 2025. This trend and the underlying drivers for soil and stone registrations are discussed in detail in Chapter 5.

Figure 4-6 Volume of greenfield soil and stone registered 2022-2025 (m^3)



Source: EPA By-Product Register

Table 4-5 Baseline greenfield soil and stone volumes

Material	Amount	Year	Description
Soil and stone as C&D waste	7.35 million tonnes	2023	EPA figures. Most of this soil and stone will be from brownfield sites.
Soil and stone determined as by-product as an SCD	1.43 million m^3	2023	Greenfield only. As reported in the EPA by-product register through SCDs.

Note: Soil and stone figures are widely reported in both tonnes and cubes. As all soil and stone materials have a different density, operators use different standard density conversion factors (e.g. 1.6, 1.8, and 2.0 tonnes per cubic metre). These nuances are discussed further in Chapter 5.

5. FINDINGS FROM REVIEW OF THE NATIONAL DECISIONS

Eight research questions were designed to best explore the outcomes of the three NC. These RQs are categorised in three parts:

- Part 1 Rapid process evaluation, covering RQ1 RQ2 and RQ3:
  These questions consider whether the National Criteria were delivered as intended, and if they have provided the sector with a more efficient regulatory process for reclassifying recycled aggregates, and reusing road planings and greenfield soil and stone. This rapid process evaluation also explores cost and time savings for operators in the market.
- Part 2 Market outcomes for construction materials, covering RQ4, RQ5, and RQ6:
  These RQs explore the extent to which the three materials have become more available in their markets, both in terms of volumes and as opposed to their virgin competitors (in the case of asphalt and aggregates).
- Part 3 Circularity outcomes and external factors, covering RQ7 and RQ8:
  These RQs discuss the contribution of the National Criteria to material circularity in Ireland, as well as some of the wider market forces that have impacted the availability and price of EoW and BP materials since the three National Criteria was introduced.



5.1 PART 1: RAPID PROCESS EVALUATION

RQ 01 *Have the National Criteria allowed for timelier administrative and operational processes regarding EoW and BP compared to the previous single-case notification system, which required waiting for an EPA determination?*

Stakeholders consistently reported that the National Criteria have delivered a substantial acceleration of administrative and operational processes relative to the former single-case notification system, particularly by removing the need to wait for an EPA determination. Under the previous SCD system, EPA responses could take several weeks to months and, in some cases, determinations took several years. Local government authorities similarly described the EPA as having been "overwhelmed" by the volume of single-case submissions in the past, resulting in delays that were widely understood (and became the expectation) across the sector.

Stakeholders consulted across industry, local government, and contracting roles agreed that the processes adopted to implement the National Decisions have dramatically shortened the administrative window. In the case of greenfield soil and stone (BP-N002/2024), the key procedural requirement is a five-day waiting period, following submission on EDEN, before material can be transferred. This five-day window does not apply to the other National Decisions (recycled aggregates and site-won asphalt), which follow their own procedural requirements. One large operator described the shift by explaining that, under the National Decisions, they can now transfer greenfield soil and stone material after five working days, whereas comparable single-case notifications were previously taking significantly more time to be assessed. Local government interviewees emphasised that the change has been particularly visible for greenfield soil and stone, describing the new system as having "freed up the movement of material" and made transfers "very efficient."

Large producers also highlighted improvements connected to the introduction of the EDEN portal. Several interviewees described the portal as "very straightforward" once familiar with it, noting that the administrative act of completing and submitting a registration form is quick, sometimes taking only half an hour to make a notification when all supporting documentation is already in place.

However, while the National Criteria have streamlined the administrative step at the end of the process, pre-notification requirements and product-specific complexities continue to generate delays and barriers for some operators and material streams.

Stakeholders emphasised that the bottleneck does not lie in the administrative submission itself but rather in pre-notification activities, particularly testing, planning checks, and assembling required evidence. One operator noted that the costs of batch testing for recycled aggregates were a blocker, stating that "the testing requirements to utilise some of this material is very severe".

In addition, experiences vary by product. A large operator highlighted the distinction between the National Criteria for recycled aggregates and the National Criteria for site-won asphalt, noting that for recycled aggregates "…when it came out, we just decided it wasn't workable, it was very different from site-won asphalt [which] had

a very clear process." This judgement was primarily commercial, with the producer explaining that "…there's a few issues that make it uneconomical and/or unfeasible to use and to invest," and that "there was quite heavy restrictions on what testing you had to do," which acted as a barrier to market participation.

Operators working with asphalt described the new process as functioning especially efficiently, with high levels of familiarity among producers and end users. In contrast, soil and stone continues to generate more operational challenges, particularly given the planning-related documentation required and the need to confirm greenfield status through mapping and site verification. These additional steps are not new; however, interviewees noted that the sheer volume of soil and stone movements in the market makes any administrative friction more visible.

The shift to a national system has also generated new pressures for local authorities. Local authority interviewees reported that efficiency gains for operators have been accompanied by a significant rise in queries directed at local government planning and waste teams, describing being "inundated with queries" from producers and operators seeking clarity on how to navigate the new procedures and interface with planning requirements. This indicates that while the administrative process itself is faster, the transition has created an increased advisory burden for regulators.

Finally, several large operators reported that a portion of the market, particularly smaller operators unfamiliar with EPA regulatory processes, required significant support to comply with the NC. Companies described regularly walking subcontractors or receiving-site operators through EDEN registrations, often "holding their hand each and every time" to complete submissions. Others noted that when moving greenfield soil and stone, much of the time is spent "educating" smaller counterparties who lack experience with the new requirements. These observations indicate that while the National Criteria administrative system is more efficient, market-wide adaptation remains uneven, and efficiency gains depend partly on the capacity and experience of the parties involved.

Overall, stakeholders agreed that the National Criteria have clearly improved timeliness when compared to the former single-case notification system, specifically by accelerating the final administrative step of registration. The administrative act of registration is much faster and more predictable, and the five-day waiting period in relation to greenfield soil and stone has replaced a process that could previously take months or years. However, while the registration step is now faster and more predictable, stakeholders noted that the preparatory work required before submission continues to drive timelines (though the nature of this work varies by material). For recycled aggregates, pre-registration activities such as sampling and testing remain resource-intensive; for site-won asphalt and greenfield soil and stone, key bottlenecks relate instead to planning checks, verification of lawful use, and confirming site conditions. As a result, while the administrative gains are consistent across all three NCs, the extent of overall time savings is influenced by the specific requirements associated with each material stream and by the capacity of operators and local authorities to support compliance.

RQ 02 *Has the new process (under the National Criteria) been clearer, including record-keeping, verification and authorisation requirements?*

Almost all operators/producers consulted as part of this project had a clear understanding of the historical Regulation 27 and Regulation 28 systems for National Decisions, as well as the policy objectives and new requirements of the National Criteria. While many operators thought the National Criteria testing requirements (before registration) were cumbersome, almost all appreciated the significant time savings compared to the SCD system (i.e. five-day movement restriction rather than many months in the case of greenfield soil and stone).

The number of EoW/BP registrations issued under the National Criteria varied significantly among operators consulted. Some operators had ~20 BP notifications since the introduction of the NC, while others had upwards of 100 registrations. Data on the Circular Economy Register for BP and EoW materials also suggests some operators register materials using the NCs multiple times a week, while many others register materials fewer than five times a year. While multiple smaller operators, including those registering EoW/BP products <5 times a year were contacted, none were available for consultation during the assessment period.

One major operator/producer, handling around 3 million tonnes of material annually and operating across 500 sites across Ireland, reported of the EDEN portal "… uploading stuff is very, very straightforward. [It's a] very simple process in having a source site and an end user site and being able to upload and [have] a five day turn around and that's really improved an awful lot of stuff for us". As noted in RQ1, there was a general level of support for the new processes introduced under the NC, especially for larger firms that had dedicated staff to manage this type of reporting/administration.

While private sector operators agree that the new system allows for clearer record-keeping and verification, public sector stakeholders reported it being "… too easy to register for either a Regulation 27 or a [NC] By-Product" due to reported inaccuracies (intentional or otherwise) when registering material. When discussing the functionality of the EDEN portal (and therefore the NC) specifically, one public sector stakeholder noted "…the coordinates could be inside in the middle of the ocean. See there is no checking of the material that's going in". It is unclear whether the frequency of mis-identified sites was human error (i.e. caused by difficulties in finding coordinates for the material source) or an attempt at obfuscating where certain (presumably high-risk) EoW/BP materials had originated.

Further, stakeholders suggested that adding some sort of geospatial functionality to the EDEN portal (in the form of a clickable map on the user side, or some sort of coordinate verification feature on the back) would be a welcome addition to boost verification, commenting "… it will be very easy to have a few checks". Concerning site-verification and record-keeping, some public sector stakeholders noted additional firm-level verification tools could be brought in as part of a suite of increased National Criteria verification measures including "blacklisting for repeat offenders, flagging potential non-greenfield source locations, flagging in-use sites which do not have planned permission". Such changes/enhancements are out

of scope for this market assessment and review, but show the balance required between a simple and seamless operator experience, and appropriate authorisation arrangements aimed at protecting community and environment.

On record-keeping requirements and visibility of BP materials, operators noted the inconsistency between the usage of metres cubed or tonnes as a unit of measurement on the statement of conformity and other documentation for soil and stone. As all soil and stone materials have a different density, converting between the two units was often left to the operator/producer (who cited standard density conversion factors of 1.6, 1.8, and 2.0 tonnes per cubic metre). Notionally surface (organic-rich) soil would have a lower density than soil and stone – however the units that ended up being reported in the EPA database were subject to a range of interpretations. Standardising this approach was proposed to be a simple, effective change to the current requirements.

Overall, stakeholders find the new process under the National Criteria clearer, including record-keeping, verification and authorisation requirements, whilst public sector stakeholders point to risks of abuse and misuse by operators. Both operators and public sector stakeholders suggested tweaks or amends that could further improve these systems.

RQ 03 *Have simplified/timelier National Criteria administrative processes allowed operators/producers to reduce costs?*

The introduction of the National Criteria has significantly accelerated timelines for moving materials, reducing waiting periods from months or years to five days. However, evidence from operators, industry stakeholders, and public authorities indicates that these changes have not resulted in clear cost reductions at the firm level. Instead, stakeholders consistently reported that administrative complexity remains a defining feature of the system, and in some cases, resourcing demands across the full lifecycle of EoW/BP materials processing have increased (see findings for RQ1).

From the perspective of operators and producers, costs associated with administrative burden remain substantial despite faster material movement. A major operator stated that meeting obligations under the National Criteria is "nearly a full-time job for somebody," as firms must continuously educate end users on procedural requirements. Multiple operators suggested challenges exist around the EDEN portal's usability and lack of automated notifications. Reportedly, the portal doesn't notify operators when declarations have been issued to which they are a counterparty, with smaller contractors often requiring support to navigate the system. This includes end users obtaining relevant planning permissions or exemptions and providing them as part of the end user declarations. Operators noted this had resulted in costs for administration, staff training, and compliance risks due to the lack of real-time updates in the EPA's system. Smaller firms were described as disproportionately affected, prompting suggestions for system changes, such as allowing producers to submit end-user notifications on behalf of users "with the users' blessing." While such changes would not align with National Criteria

policy objectives, it does show the perceived complexity of the National Criteria and resource demands of the current process. Importantly, operators also highlighted that administration costs were high under the Regulation 27 and Regulation 28 National Decisions requiring an SCD, suggesting that the marginal change in costs attributable to the National Criteria could be positive but of relatively small scale.

Stakeholders also noted the growing role of hauliers as intermediaries in both transport and administrative processes. Several operators reported that hauliers (who transport EoW/BP materials between source and destination sites) often act as counterparty firms for the purposes of statements of conformity or end-user declarations.[3] Some hauliers offer "full service" solutions that appeal to smaller contractors who "don't have the time or the energy or the wherewithal to worry about it." Perspectives on the growing role of hauliers in the EoW/BP materials market were mixed, with larger operators highlighting efficiencies from consolidating contracts with a single haulier, stating "If we deal with one haulier and one haulier has 10 contracts (for material destination sites) on at one time, we're only dealing with a single haulier, so it makes our life an awful lot easier."

Public sector representatives highlighted the operational challenges associated with travelling out to material source sites within the five-day window post registration in which greenfield soil and stone cannot be moved, describing it as "very, very narrow" and, in some cases, "impossible" to meet. This compressed timeframe has placed significant pressure on enforcement authorities, particularly when material from a single source site is directed to multiple end users. Operators also noted inconsistencies in enforcement practices, observing that local authorities often have to balance risk-based enforcement priorities with the demands on limited resources. These dynamics are further discussed in RQ6.

Taken together, the findings suggest that while timelier administrative processes have improved material movement efficiency, they have not delivered clear cost savings to operators. These findings, primarily based on consultation with 7 operators, should be interpreted with care. Data sourced from the Circular Economy Register for BP and EoW materials suggest some large operators are using the new National Criteria processes multiple times a week, with volumes exceeding hundreds of thousands of tonnes of material annually. While reported firm-level administrative challenges are worth considering, the sheer volume of registrations available suggest at least some larger firms are embracing the National Criteria system for the three EoW/BP material categories.

3 Under the National Criteria for recycled aggregates (EoW-N001/2023), site-won asphalt (BP-N001/2023), and greenfield soil and stone (BP-N002/2024), hauliers are not defined as producers, holders, or end-users and therefore cannot issue or receive Statements of Conformity or End-User Declarations. Their practical involvement, as described by stakeholders, relates solely to logistical coordination and facilitating communication between producers and end users.

5.2 PART 2: MARKET OUTCOMES FOR CONSTRUCTION MATERIALS

RQ 04 *To what extent have recycled aggregates from construction and demolition waste (e.g., soil and stone, concrete, bricks and ceramics) become more available in the market?*

While operators, including industry groups, reported enthusiasm for the reuse of C&D waste in construction projects, most stakeholders interviewed noted the relatively limited availability of recycled aggregates in the market, both before and after the introduction of the National EoW Criteria for Recycled Aggregates. This perspective was especially expressed in the context of a reported increase in demand for virgin aggregates to meet Ireland's growing construction pipeline.

Stakeholders consistently emphasised that safe reuse is a concern, particularly regarding impurities such as defective blocks containing pyrite. Public authorities indicated ongoing efforts to ensure proper protocols are in place to prevent contaminated materials entering the reuse stream. The development of EU-level EoW criteria for construction and demolition waste was highlighted as an important step toward standardising safety requirements. Overall, safety considerations remain a central factor in determining the volume of material that is practically reusable.

Despite the availability of material, uptake by clients remains limited. Operators and industry stakeholders reported that stockpiles exist, but only a small fraction is reused. Major barriers include restrictive allowed uses under the National Decision, lack of demand from clients, and procedural complexity in procurement and handling.

For example, one operator indicated that less than 1 per cent of business involves secondary material, and several noted that clients often choose primary/virgin material for simplicity and certainty. Some stakeholders highlighted potential opportunities for policy levers, such as subsidies or green procurement rules, to increase market acceptance.

There was consensus that investing in fixed capital costs for aggregate screening, crushing, and resizing was only tenable for the bigger operators/producers who had consistent supply/access to C&D material. Stakeholders noted that within the recycled aggregates material category, there were many different product types being produced (e.g. 6F2 vs 7 mm aggregate) which had different use cases (e.g. draining rubble or car park base).

Local government stakeholders have reported increases in the use of recycled aggregates for firms with the equipment and scale to obtain, process, and transport C&D material. Stakeholders reported that firms outside of Ireland's (mainly brownfield) developments often do not have the required throughput of C&D material to make the investment in capital equipment commercially viable. This aligns with input from producers who advised the margins of producing (sorting, crushing, etc) recycled aggregates were only slightly more favourable than purchasing aggregates from quarries.

A property developer also noted that processing recycled aggregates requires significant capital investments and access to construction materials, concluding there is the same number of producers in the market as before the introduction of the National Criteria. In their view, participating in the market for recycled

aggregates was only possible for larger operators/producers as "…have the machinery and they have the equipment to do it. So, there is no capital cost for them to change the way they are doing business".

This view was supported through the account of a large operator when speaking of the prohibitive costs of entering the recycled aggregate market for smaller firms, noting "it is too costly for everyone to get into it" and advising it was more suitable for large firms. While the EPA register shows the number of suppliers has increased since the introduction of the National Criteria, there remains a view among industry that there are significant barriers to entry.

Multiple operators noted the importance of having capital equipment to resize recycled aggregates (especially crushed concrete) from >70 mm into 6F2 for their use in road fill or car park base. One operator also noted the additional investment required in screening equipment to be able to isolate 10 mm chip aggregate to be used in backfill of drainage.

Multiple operators/producers spoke of using contractor services for processing aggregates, although this was limited in scope and replicability, namely due to lack of facilities. One operator noted "there are only four or five facilities in the whole country that you can actually send material to and they'll send you back out repurposed or recategorized material". Another operator, which was procuring a groundworks contractor on site to resize construction aggregates, noted that the capital investment was roughly cost neutral, in the vicinity of 2-3 EUR/tonne savings. In practice, this means the cost of processing aggregates was largely offset by the cost savings of buying virgin aggregates from quarries. Part of this saving also came from a reduction in landfill fees for C&D waste (at 10 EUR/tonne). The operator noted that these unit economics were very dependent on the size and refinement of the material requested, explaining "…obviously the more you screen and scrub the material, the more expensive it becomes to generate that material".

Stakeholders reflected that the initial push for repurposing C&D waste as recycled aggregates started around five years ago as a commercial endeavour. Now, however, it is seen as one of the pillars of several firms' circular economy strategies, becoming more important as sustainability reporting of supply chains becomes the norm.

Overall, stakeholders reported that the availability of recycled aggregates has remained broadly limited, with little change since the introduction of the National Criteria. Across interviews, operators emphasised that only larger firms with existing substantial capital equipment and consistent C&D waste throughput are able to produce recycled aggregates, while smaller operators lack the scale or facilities to participate.

Stakeholders also noted that only a handful of processing facilities operate nationally, and that high investment costs, limited material availability outside major brownfield areas, and modest or project-specific cost savings continue to constrain market entry. As a result, although interest in recycled aggregates is increasing, overall market availability appears largely unchanged, and any expansion remains constrained by commercial and infrastructural factors rather than the EoW framework.

RQ 05 *To what extent have road planings (site-won asphalt) in the production of consistent and quality road surface products been increasingly reused? To what extent have the National Criteria prevented waste generation and/or reduced construction waste going into landfill (recycled aggregates only)?*

Across operators, industry stakeholders, and public authorities, there is consistent evidence that the reuse of site-won asphalt has increased since the introduction of the National Criteria. Stakeholders reported greater incorporation of reclaimed asphalt pavement into road materials and noted that clearer regulatory conditions have made the process more straightforward and predictable. Several interviewees linked this increase to recent changes in Transport Infrastructure Ireland (TII) specifications allowing higher RAP content, describing these specifications as a key enabler. As one operator explained, the market "…is more open to RAP now than five years ago," although this was attributed primarily to changes in standards rather than to the National Criteria alone.

Stakeholders also agreed that uptake remains uneven across the sector. Some operators reported being able to integrate RAP more routinely into their processes, while others indicated that they have not significantly changed their practices. The differences were generally attributed to variations in technical capability, plant configuration, and familiarity with quality assurance requirements, rather than to the National Criteria. Importantly, multiple interviewees stressed that the National Decision did not generate new demand but rather provided regulatory clarity that supports reuse where specifications or client requirements already permit it. As one stakeholder summarised, "…the decision removes friction, but it doesn't create a market."

Public authorities also noted that increases in RAP reuse appear most evident in public road works, while private clients rarely request or specify recycled asphalt materials. Across all stakeholder groups, there was strong consensus that progress to date has been driven primarily by policy and specification changes, rather than by organic market demand.

Taken together, the findings suggest that the National Criteria helped enable increased reuse of site-won asphalt, but progress remains modest, uneven, and largely dependent on external standards and client requirements rather than on the decision alone.

In contrast, there is only limited evidence that the National Criteria for recycled aggregates have led to significant increases in waste recycling (in terms of tonnages) or reductions in disposals at landfill sites. Operators consistently reported an increase in the production of recycled aggregates, supported by clearer regulatory pathways. However, this increase in supply has not translated into a comparable increase in use. Several stakeholders highlighted extensive stockpiling, describing recycled aggregates "sitting on the ground with nowhere to go."

Across operators, industry stakeholders, and public authorities, the most frequently cited barrier was the restrictive allowed uses defined in the National Criteria. Interviewees emphasised that recycled aggregates are excluded from higher-value applications and are often not reflected in tender specifications, limiting demand.

Stakeholders also noted that procurement practices and client preferences continue to favour virgin materials. One interviewee stated that "even when recycled is cheaper, clients don't want the paperwork or the perceived risk".

Several respondents indicated that, in the absence of procurement requirements or broader performance-based standards, there is little incentive for change. Public authorities confirmed that they had not observed a decline in disposal or landfilling attributable to the National Criteria. While some operators noted that materials were reused informally prior to the National Criteria introduction, no substantive shift in disposal practices was reported.

The evidence thus suggests that while the National Criteria have clarified regulatory requirements and facilitated production, they have not driven a significant change in end-use or disposal outcomes for recycled aggregates.

Overall, for site-won asphalt, the National Criteria have supported increased reuse, particularly where external specifications (such as TII requirements) already permit higher RAP incorporation. Stakeholders consistently indicated that the National Criteria improve regulatory clarity and remove administrative friction, but that increases in RAP uptake are primarily driven by specification changes and client requirements rather than by the National Criteria alone.

For recycled aggregates, the National Criteria have clarified production requirements and facilitated supply, but these changes have not translated into increased utilisation or reduced landfilling. Restricted allowed uses, procurement practices, and limited market confidence remain the key barriers. Stakeholders widely agreed that regulatory clarity alone has not been sufficient to drive significant behavioural change in demand.

RQ 06 *To what extent has greenfield soil and stone been safely and increasingly reused?*

Across operators and public authorities, there is evidence of increasing volumes of greenfield soil and stone entering the reuse stream, particularly through by-product notification systems. This also aligns with the by-product registration data (described in chapter 4). Stakeholders reported that overall material flows are growing rapidly, with significant quantities moving through regulatory channels in recent years. For example, the Department of Climate, Energy and the Environment (DCEE) noted that approximately 2.5 million tonnes of soil and stone were notified in 2024, with expectations for further increases in 2025. Industry stakeholders described having stockpiles of reusable material in quarries, ready for market uptake, although actual demand remains modest.

Multiple operators/producers commented on the recovery levy for C&D waste, under the *Circular Economy (Waste Recovery Levy) Regulations 2024 (S.I. No. 441/2024)*, currently set at 10 EUR/tonne. This was seen as a driving factor for site owners to preference soil and stone material to be classified as greenfield, rather than brownfield. While brownfield soil and stone were out of scope for the market

assessment and review, multiple operators/producers commented on the need for greater clarity of the definitions to stop site owners from 'choosing' greenfield classifications as a way to avoid waste levy costs. These perspectives were also shared by public sector stakeholders, which noted that while parts of a brownfield site could indeed be greenfield in nature, the vast majority of soil and stone BP registrations were "coming from urban areas in Dublin City, Cork City, Waterford City, Limerick City, [and] Galway City". This was perceived as an enforcement risk, especially if local authorities were not able to inspect every supposedly greenfield site.

Some stakeholders advised that public-sector projects have increasingly looked to incorporate greenfield soil and stone, but usage remains limited. Public authorities highlighted that frameworks, such as green public procurement and sectoral circularity roadmaps (discussed further in RQ7), are intended to increase uptake, but tangible effects on actual reuse volumes are still modest. Overall, reuse in public works is occurring, but primarily in applications that pose minimal risk and do not require high-performance material.

In conclusion, the BP National Criteria has enabled the potential for increased reuse of greenfield soil and stone, but with volumes growing year on year. At present, while adoption has been strong compared to other materials it is suggested that , with further regulatory clarity, incentives, and/or procurement mandates, utilisation could increase substantially. Any policy future changes would need to consider definitions and practice around the distinction between greenfield and brownfield sites.



5.3 PART 3: CIRCULARITY OUTCOMES AND EXTERNAL FACTORS

RQ 07 *To what extent have the National Criteria supported green procurement and/or reduced the carbon intensity of the built environment?*

Across interviews, stakeholders consistently reported a growing interest in the use of secondary materials in construction projects, including recycled aggregates, site-won asphalt, and greenfield soil and stone. However, this shift in attitudes was not wholly attributable to the introduction of the National Decisions. Rather, operators and authorities viewed the uptake of secondary materials as being driven by broader industry trends, evolving technical standards, and isolated pockets of innovation, rather than by the regulatory framework itself.

Operators and producers were unanimous in stating that public procurement criteria remain dominated by cost and programme considerations, with circularity outcomes rarely weighed meaningfully in tender evaluations. Private-sector stakeholders characterised circularity as having "not a huge emphasis" in procurement, reporting that it does not materially influence contractor selection. This view was reinforced by industry respondents who had "seen no evidence" of public procurement creating demand for recycled or BP materials. Even where interest exists among some semi-state bodies, interviewees reported that it has not translated into consistent requirements, scoring criteria, or preferential treatment for secondary materials in major tenders.

Multiple operators noted that the National Decisions do not currently resolve the practical barriers preventing reuse of large volumes of greenfield soil and stone in major public projects. One inconvenience mentioned during the interview was that the requirement to identify a defined end-user at the time of notification is often incompatible with procurement timelines. In large infrastructure projects, material producers and end-users are typically matched only weeks before excavation begins. As a result, premium-grade soil and stone generated through public projects frequently defaults to soil recovery facility or quarry backfill, rather than being reused as a by-product under the National Decision framework.

Evidence from operators also suggests that, outside the asphalt sector, public project specifications rarely mandate or even encourage secondary materials. Several interviewees reported never encountering a building or infrastructure project that required recycled aggregates, emphasising that decisions remain driven by daily price and availability considerations. Industry bodies similarly observed that public procurers often explicitly specify primary aggregates, creating a structural disincentive to adopt secondary materials. Although some progress has been made, such as Transport Infrastructure Ireland (TII) incorporating higher reclaimed asphalt pavement (RAP) content (e.g. 50–60 per cent) into updated standards, operators noted again that such developments stem from technical frameworks rather than the National Decisions.

Public authority stakeholders confirmed this, acknowledging that while Ireland has a Green Public Procurement Action Plan and related policies encouraging best practice, these instruments have not yet translated into systematic green procurement requirements. They also highlighted that many ongoing practices within local authorities and semi-state bodies still discourage secondary material use, such as specifications that default to virgin aggregates. Work underway on the national construction circularity roadmap aims to address these barriers, but stakeholders stressed that these efforts sit outside the EPA's remit and are only in early stages.

Overall, the interview evidence indicates that, while the National Decisions have contributed to expanding the supply of recycled aggregates, site-won asphalt, and greenfield soil and stone, and enable compliant reuse routes, they have not yet acted as a driver of green procurement nor materially reduced the carbon intensity of the built environment. The constraints lie not in the regulatory framework but in the systematic implementation of green procurement rules, tendering practices and specification norms across Ireland. The existing procurement framework continues to favour the use of virgin materials. As a result, the carbon-saving potential that could be facilitated by National Decisions remains largely unrealised in the absence of stronger procurement-led demand signals.

RQ 08 *How have external factors (e.g. economic cycle, secondary materials market confidence) affected the change in use of BP/ EoW products since the introduction of the National Criteria?*

The evidence gathered through stakeholder interviews indicates that external factors, particularly price competitiveness, market confidence, operator capacity, and long-standing stigma around secondary materials, have played a significant role in shaping how EoW/BP materials have been used since the introduction of the NC. These external factors have, in some cases, enabled uptake, while in others they have constrained the effects of the National Criteria on market behaviour.

Price competitiveness emerged as one of the strongest external influences, with several operators and industry representatives emphasising that secondary materials often remain more expensive to produce than their primary (or 'virgin') equivalents. One operator noted that producing reclaimed asphalt involves additional processing, fuel use, and manpower, resulting in costs "around 25 EUR per tonne," even before accounting for bitumen and stone. Industry stakeholders reinforced this point, explaining that although "the expectation is that secondary materials are going to be cheaper," compliance and testing requirements mean that secondary producers may face costs "up around 1 euro per tonne," compared with "EUR 0.10 per tonne" for some primary aggregates. Public sector stakeholders similarly observed that primary aggregates remain plentiful and therefore "still cheaper to source," with the default practice being the use of virgin materials. These pricing dynamics have reduced the competitive advantage of EoW and BP materials, affecting their uptake irrespective of regulatory clarity and efficiency.

Findings from the interviews also pointed to firm characteristics and operator capacity as key external factors influencing uptake. While some larger producers are well equipped to navigate the record-keeping, documentation, and verification requirements embedded in the National Decisions, multiple interviewees noted that smaller operators often struggle to comply. Industry representatives highlighted that small recyclers may lack weighbridge systems or digital tools, relying instead on handwritten dockets, which makes producing Statements of Conformity more challenging. Public authorities confirmed that engagement with EoW processes "primarily happens at the larger firm scale," noting that the level of documentation required can be "off-putting" for smaller operators. Some operators further suggested that limited enforcement capacity puts compliance at risk, meaning smaller sites may "bypass" formal compliance processes and reducing the incentive for full participation. These capacity constraints and inconsistencies in enforcement act as external barriers that historically have dampened the market penetration of secondary materials in the construction sector.

Market confidence and customer perceptions were also highlighted as important external conditions shaping demand. Some industry stakeholders linked pricing trends directly to market expectations, observing that the price of secondary materials remains "heavily influenced by the amount of virgin materials going out the door." Another industry actor contrasted the relatively strong confidence in reclaimed asphalt, where public agencies (including TII) were described as "very progressive and innovative". However, more cautious attitudes were observed regarding public sector authorities in other regulatory contexts. Public confidence, risk aversion, and entrenched preferences for primary materials continue to play a role, with a group of public sector stakeholders noting that the organisations most active in supplying secondary materials "have been operating for a while," suggesting limited entry of new firms and a continued reliance on established players. This perspective was confirmed by multiple operators, suggesting that the quantity of firms entering or exiting the market for secondary materials was very small over the past 2-3 years.

Finally, multiple stakeholders reported that secondary materials, particularly recycled aggregates, compete in the building and construction market against virgin materials. Many Irish regions have plentiful quarries and well-established supply chains (processing, haulage, and commercial agreements between parties) for virgin rock, notably at affordable price points. The exception to the competition between secondary and virgin materials is for aggregates to be used in structural concrete or similar products. The National Criteria restrict use of recycled materials for some structural purposes, with some contractors reporting they'd prefer to use 100 per cent virgin materials on site (and pay a price premium) rather than having to manage two different product classes (that are almost identical in appearance and function etc).

5.4 CASE STUDIES

5.4.1 Case study 1: Site-won asphalt in an asphalt production facility

Background

A Dublin asphalt provider operates without access to virgin quarry aggregate and instead relies on reclaimed asphalt pavement (RAP) to manufacture hot mix asphalt. In 2021, the firm invested EUR 500,000 in a RAP processing plant, enabling it to supply asphalt produced from RAP across the Leinster region. The introduction of the EPA's National By-Product Criteria for site-won asphalt made it easier for the firm and its suppliers to classify RAP as a by-product rather than waste, supporting a more circular production model.

Applying the National Criteria in practice

The plant receives RAP mainly from local contractors working on road maintenance and resurfacing. These approved suppliers complete a Statement of Conformity and register the material through the EPA's EDEN portal before delivering material to the plant. Smaller contractors sometimes find the system difficult to use (especially when using it for the first time), so the RAP plant operator provides support to contractors where possible.

In addition to RAP from roadworks, suppliers also return up to 10,000 tonnes annually of surplus asphalt originally purchased from the provider ("bituminous returns"). It is checked for contamination and then added as feedstock into the RAP plant. These (relatively) small loads are not recorded in the EDEN portal as they are formally counted as a returned product.

Contractors pay around EUR 4 per tonne to offload RAP at the plant, which is much lower than transferring the material as waste to an authorised waste facility. After the plant issues an End-User Declaration, the RAP is further tested for contaminants. Next, it is crushed, screened, and blended with fresh bitumen. Raw (i.e. excluding capex and labour) processing costs are around EUR 25 per tonne.

The resulting hot mix asphalt typically contains 25-30 per cent RAP, which is used mainly in urban road resurfacing and maintenance projects. Hot mix asphalt can sell for approximately EUR 100 per tonne (dependent on volume and transport considerations), remaining competitive with virgin asphalt supplied by larger quarry-backed firms.

Outcomes and benefits

Using site-won asphalt under the National Criteria allows the asphalt producer to:

- Reduce (or in this case, largely eliminate) its need for virgin quarry material
- Improve circularity using material already available from local works (i.e. site-won asphalt)
- Offer a quality recycled product while keeping costs competitive
- Avoid costly waste management steps by treating site-won asphalt as a by-product rather than waste requiring landfill
- Improve traceability of material flows through documentation and declarations
- Reduce environmental impacts by lowering demand for new aggregate and lowering transport-related emissions

Experience of the National Decisions

The operator reports they are successfully taking in RAP and producing hot mix asphalt at a commercial rate, with potential to expand operations. While it was noted the National Criteria had improved transparency across the material supply chain, several challenges for the operator remain:

- Smaller contractors often struggle with the EDEN system
- The portal does not send automated notifications to the end-user (RAP plant) when a registration is submitted
- Real-time updates to the EDEN portal can be difficult when delivery quantities change at short notice

5.4.2 Case study 2: The use of recycled aggregates in a demolition and enabling works company

Background

A large demolition and enabling-works contractor with over 30-years of experience processes substantial quantities of concrete and aggregate arising from demolition works. Recycled aggregates represent 80-90 per cent of the material mass typically generated on its projects. The company has long prioritised recycling and previously operated under Regulation 27 procedures but now applies the EPA's National Criteria for Recycled Aggregates as part of its standard workflow.

Applying the National Criteria in practice

All material processing is carried out in-house, with no external suppliers involved. Before using the National Criteria, the company already had factory production control systems, environmental management plans, and quality procedures in place to support CE-marked (i.e. European Conformity) aggregate production. It is the only demolition contractor certified for factory production control for recycled aggregates, allowing it to apply CE marking. To apply the National Criteria, the company:

- Completes the required testing and environmental checks
- Uploads the necessary documentation to the EPA's EDEN portal
- Ensures suitability of the end facility or site

Use of the EDEN portal is described as straightforward, with the company logging on to the system periodically when a new project requires notification.

Outcomes and benefits

Under the National Criteria, recycled aggregates can be placed on the market once they meet all requirements. This has helped create greater clarity and confidence for clients, particularly because compliant material is:

- Approved as an EoW material (through the National Criteria)
- CE-marked
- Tested and documented to recognised standards

The contractor reports growing demand for its recycled aggregates, noting that buyers are often willing to take the material when there is a positive price differential compared to virgin aggregates. Confidence in this market has improved over the last five years as regulatory certainty has increased.

Recycling aggregates also helps divert demolition concrete from landfill. Previously, during periods of regulatory uncertainty, materials were sometimes landfilled (at a significant cost) due to the absence of an alternative pathway that provided the desired regulatory certainty.

Experience of the National Decisions

The contractor stated that the National Decision aligns closely with systems it already had in place. As a result, the transition was smooth, and documentation requirements are considered clearer and more structured than before. However:

- Perceived administrative workload has increased, due to more testing and documentation
- Processes may be difficult for smaller contractors, who often lack the required expertise, systems, or in-house environmental professionals to navigate the National Criteria and the EDEN portal
- Market uptake varies, with some developers cautious of using recycled aggregate due to limited understanding of its quality or restrictions of use

Overall, the National Criteria for recycled aggregates are seen as positive, providing a more dependable route to reuse high-quality recycled material. Further adjustments to restrictions on aggregate use may encourage more developers to purchase the product compared to virgin aggregate alternatives.



5.4.3 Case study 3: Use of greenfield soil and stone in a road infrastructure project

Background

The Foynes to Limerick Road Scheme (including the Adare Bypass) identified a material deficit of around 500,000 m^3 needed for embankment construction for the initial phases of the scheme. To address this, the project team began sourcing greenfield soil and stone from contractors, for import to the site in accordance with the National Criteria (BP-N002/2024).

Applying the National Criteria in practice

Suppliers with surplus greenfield soil and stone operating in the same regional vicinity liaise with the Contractors directly to confirm if there is a demand for material.

The contractor liaises with the supplier and completes the required registration through the EPA's EDEN portal. A five working day period is observed after registering the material on the By-product Register following which the haulage of material can begin if no follow up action has been taken by the Local Authority.

The project team also conducts its own checks before accepting any material, including:

- Reviewing planning files, historic maps, and aerial images to confirm the source was indeed a greenfield site.
- Inspecting the materials as they are delivered to site.
- Inspecting the source locations.

To date, the project has accepted around 210,000m^3 of greenfield soil and stone under the National Criteria.

Outcomes and benefits

The project receives incoming materials which reduces the overall deficit of materials and contractors benefit because sending soil and stone to the project is often a more cost-effective and environmentally friendly solution than disposal or recovery at an authorised waste facility. Additionally, the demand for virgin materials is consequentially reduced.

The project team supervises placement of the materials to ensure it meets technical specifications, and materials are sent to laboratories to confirm compliance with embankment standards.

Reusing the soil and stone under the National Criteria also means the material is not classed as waste, avoiding the recovery levy that would apply if it were sent to a soil recovery facility. This levy would be charged in addition to the facility gate fee, so its avoidance results in further cost savings for the project and contractors.

Further, using clean greenfield soil and stone as a reusable by-product also enhances the sustainability of the project, reducing the need for quarry-sourced aggregates and lowering the environmental footprint of embankment construction.

Experience of the National Decisions

The project team reports the current BP greenfield soil and stone process is now 'very streamlined' with a fast 5-day turnaround possible in the right circumstances.

Stakeholders proposed during consultation that it may be worth considering whether the BP process should allow for further relevant information to be submitted with the registrations, such as aerial images and detailed drawings.

Overall, the process was reporting to be working well for the contractors' needs.



6. CONCLUSIONS

Key conclusions from the market assessment and review

- Overall, stakeholders agreed that the National Criteria have clearly improved the timeliness of registering by-products and end-of-waste materials.
- Stakeholders generally find the new administrative processes under the National Criteria clearer, particularly the requirements on record-keeping, verification, and authorisation – though public sector stakeholders pointed to risks of misuse.
- Many stakeholders noted the challenges experienced by smaller operators of navigating the National Criteria, including use of the EDEN portal, and complying with Statements of Conformity and End-User Declarations.
- For site-won asphalt, the National Criteria have supported increased reuse, especially where external specifications already permit higher RAP incorporation.
- For recycled aggregates, the National Criteria have clarified production requirements and supported supply but utilisation in the market remains relatively low. Limits on allowed uses, procurement practices, and low market confidence remain key barriers.
- For greenfield soil and stone, volumes are increasing, and the National Criteria have enabled greater reuse potential. Adoption has been strong compared to other materials. Greater clarity in relation to definitions is requested to assist operators. Many stakeholders noted that regulatory bodies have faced challenges relating to timing and resources.
- Overall, while the National Decisions have expanded compliant reuse routes for recycled aggregates, site-won asphalt, and greenfield soil and stone, they have not yet led a change in green procurement practices, nor materially reduced carbon intensity in the built environment.
- Both operators and public sector stakeholders suggested that further refinements to the National Criteria, and associated policies, could improve the system for all stakeholders.



7. RECOMMENDATIONS

Recommendations were developed based on the outcomes of the market assessment (Chapter 4) and the RQs and case studies (Chapter 5), so that policy actions or adjustments can be explored with the aim to support the increased use of EoW/BP materials under the National Criteria.

The findings suggest that improvements can be made through two channels, firstly, by improving the process and administration under National Criteria (Section 7.1); and, secondly, by enhancing the effectiveness of the National Criteria (Section 7.2).

These recommendations are not comprehensive nor exhaustive in nature and are presented as select 'next steps' for the EPA and other policy making agencies to consider for the future, based on the insight gained during stakeholder consultation, desktop research and analysis.

7.1 PROCESS AND ADMINISTRATIVE RECOMMENDATIONS

Recommendation 1:

Review the operation of the EDEN portal to improve usability, data accuracy, and notification processes.

While the EDEN portal was generally well received by operators/producers, there were specific comments about the lack of end-user notification when a registration is made. While in most cases the producer and end-user would have communicated clear contractual terms prior (including quantities, haulage conditions, and payment terms), there were specific cases in which a statement of conformity was lodged without the knowledge of the end user. This created perceived enforcement risks if local authorities were to investigate. Operators expressed a clear preference to be made aware (automatically) when they were counterparty to a material registration through EDEN.

This recommendation could also be progressed alongside the EPA running a wider feedback process (e.g. a survey), collating perspectives raised during consultation regarding the EDEN portal, including:

- Introducing permissions controls in the EDEN system (e.g., prevent unauthorised site selection in dropdown menus).
- Introducing geospatial features for the coordinate data entry (or validity checks once coordinates are entered) to ensure site locations are accurate.
- Addressing IT and coding issues (e.g., inability to use correct waste codes to recycle mixed C&D waste).
- Accessibility issues (technical or perceived) for small operators.
- Ensuring more timely/accurate data on volumes is published online (e.g. relevant data collected through the EDEN portal is then promptly made available through the EPA's end-of-waste and by-product registers).

Recommendation 2:

Invest in practical education and develop and update information materials (e.g. how-to guides, updated user documents, and other awareness resources, including various media) to support smaller operators and contractors in navigating National Criteria requirements (e.g. material registrations and statement of conformity) and subsequent opportunities (e.g. ability to move greenfield soil and stone by-product after five working days).

Multiple operators noted the challenges of working with smaller counterparties who often have limited time and resources to navigate the National Criteria processes, and who are unfamiliar with material registration, the EDEN portal, or completing a Statement of Conformity. These constraints have led larger operators to frequently act as a 'coach' when interacting with smaller counterparties. Stakeholders suggested that concise "how-to" guides and step-by-step materials could help overcome both the lack of time and the lack of understanding, making the National Criteria processes easier to follow and reducing apprehension about non-compliance. As part of this approach, the EPA could consult with other public sector stakeholders who field NC-related questions, such as local councils, to ensure guidance reaches smaller operators effectively.

7.2 BROADER POLICY AND MARKET-WIDE RECOMMENDATIONS

Recommendation 3:

Review EoW usage restrictions (e.g. pollutant limit values) for recycled aggregate (e.g. the 100 m width x 100 m length rule, and the every 2,000 tonne produced testing rule) to ensure ongoing effectiveness.

Both producers and end users of recycled aggregates consulted as part of this study reported challenges using EoW materials given the restriction on usage within construction projects. This was especially true given the widespread availability, and relative affordability of virgin aggregates on the market. The most frequent feedback was around the impracticality of using recycled aggregate over areas less than 100 m wide × 100 m long. Despite allowances for linear features (e.g. roads and rail) (Ireland, 2023) multiple stakeholders expressed their preference to use virgin aggregates, even if recycled aggregates were cheaper, only to avoid navigating these usage restrictions (and ensuring compliance).

Multiple operators also queried whether the 2,000-tonne batch testing requirement for recycled aggregates was fit for purpose, given the expense this added to moving large volumes of materials. These operators expressed frustration with pollutant limit levels for recycled aggregates of various contaminants/trace elements, especially those that are naturally occurring (even in virgin aggregates) rather than synthetic chemicals/materials.

While it is recognised that pollutant limit values play a crucial role in environmental and community safety, further clarity among operators on the rationale for the current EoW material standards for recycled aggregates could help to reduce uncertainty and improve circularity.

Recommendation 4:

EPA to work collaboratively with local authorities in expanding training and support for risk-based enforcement activities including examining the stand-still period, addressing producer non-compliance, and ensuring consistency across regions.

Local authorities are primarily responsible for enforcement of materials transferred under the National Criteria. However, public sector stakeholders made it clear during consultation that, given the level of activity represented by the numerous registrations, it is challenging to balance risk-based enforcement priorities in relation to registrations under the National Decisions alongside many demands on local authorities limited resources. Stakeholders referred to the self-certification aspect of the National Criteria, compared to relying on EPA for Decisions under the previous Regulation 27 or Regulation 28 systems. These stakeholders highlighted the operational challenges associated with inspecting material source sites within the five-day window post registration in which greenfield soil and stone by-product must not be transferred, describing it as "very, very narrow" and, in some cases, "impossible" to meet.

Similarly, feedback from operators and producers suggests the level of enforcement is variable across local authority jurisdictions. Some local authorities were reported to attend end-user sites almost 100 per cent of the time when a registration was lodged, while others were inspecting materials very infrequently. Some operators also suggested some local authorities didn't have a good understanding of what their obligations were on site (e.g. "having a look" as opposed to confirming material volumes, sources, and testing requirements).

There was consensus among both operators and local authorities themselves that local authorities lacked the time and staff allocation to prioritise attending perceived low-risk sites to confirm material type and volumes in the 5-day transfer window.

It is recommended the EPA works with local authorities in expanding training and support for risk-based enforcement activities. This firstly involves understanding how local authorities prioritise site inspections, then secondly collaborating on best practice for local authority staff when they get to sites. From here, the EPA can work collaboratively with local authorities as they progress an efficient and effective enforcement approach.

Recommendation 5:

Prepare guidance on brownfield soil and stone to identify any areas where the existing definition of greenfield soil and stone in the National Criteria or Explanatory Note may create uncertainty for operators.

The removal of the C&D waste exemption under *Waste Management (Landfill Levy) (Amendment) Regulations 2024 (S.I. No. 442/2024)*, set at 10 EUR/tonne, was a major factor influencing operators and producers' preferences regarding recycled aggregates and soil and stone. One asphalt producer cited the introduction of the levy as one of the reasons they were investing in RAP plants, as there was to be an increased supply of road planings from contractors moving away from landfill practices.

Additionally, multiple operators/producers also commented on the phasing in of the recovery levy for C&D waste, under the *Circular Economy (Waste Recovery Levy) Regulations 2024 (S.I. No. 441/2024*) between January-September 2025. At 10 EUR/tonne, this also drove some site owners to seek to have material classified as greenfield (to be used under the National Criteria as a BP), rather than brownfield soil and stone (which would be subject to the levy when sent to landfill and/or soil recovery facilities).

While brownfield soil and stone were out of scope for the market assessment and review, multiple operators/producers commented there needed to be greater clarity of definitions to stop site owners 'choosing' greenfield classifications to avoid waste levy costs.

Ultimately, the behaviour of individual operators, as well as enforcement and compliance, is outside of the EPA's remit. However, it is recommended the EPA review its guidance on the assessment and classification of soil and stone arising from brownfield sites, with consideration of how this guidance interacts with the waste levies introduced in 2025 and the implementation of the National Criteria.

Recommendation 6:

Conduct a policy review with relevant partners (e.g. DCEE and LGMA) to explore how the National Criteria and associated EoW/BP materials can facilitate the large-scale use of secondary materials in/from infrastructure projects, including through public procurement.

There was unanimous feedback from operators and producers, as well as some government authorities, that public procurement of aggregates and soil and stone still focused on time/cost as preferred KPIs, rather than circularity outcomes.

Additionally, stakeholders noted the difficulty in using the National Criteria for greenfield soil and stone in major project procurement due to the need to have a defined end-user ahead of time. Producers and end-users of BP materials are often only 'matched' weeks ahead of time, making the 'default' arrangement for the vast majority of material associated with large infrastructure projects to go to landfill or soil recovery facilities (e.g. often backfill in quarries). Developers also reported hesitation with the sheer volume of material sampling and testing that would be required under the National Criteria for EoW materials.

While procurement policy across government departments in Ireland is not within the remit of the EPA, a policy review is recommended to see what conditions would need to be met for NC, or other policy areas in the EPA's remit, to improve the compatibility of these requirements with encouraging circularity in public procurement.

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APPENDIX 1. STAKEHOLDER CONSULTATION LIST

Table A1.1 lists stakeholders consulted as part of this study.

Table A1.1 Stakeholder consultation list

#	Organisation	Date
1	Department of Climate, Energy and the Environment (DCEE)	29 October 2025
2	Siac Bituminous Products Limited (SIAC BP)	31 October 2025
3	Irish Asphalt Pavement Producers Association (IAPA)	4 November 2025
4	ENVA Ireland Limited	6 November 2025
5	Irish Waste Management Association (IWMA)	6 November 2025
6	Irish Green Building Council (IGBC)	10 November 2025
7	Roadstone Limited	11 November 2025
8	Breedon Materials Limited	11 November 2025
9	IMS Site Services Limited	12 November 2025
10	Barnmore Demolition Limited	12 November 2025
11	Cairn Homes Construction Limited	12 November 2025
12	Transport Infrastructure Ireland (TII)	18 November 2025
13	Local Government Management Agency (LGMA)	24 November 2025
14	Department of Housing, Local Government and Heritage	28 November 2025
15	National Standards Authority of Ireland (NSAI)	2 December 2025
16	Mid West Roads Ireland	26 January 2026

An Ghníomhaireacht um Chaomhnú Comhshaoil

Tá an GCC freagrach as an gcomhshaol a chosaint agus a fheabhsú, mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaol a chosaint ar thionchar díobhálach na radaíochta agus an truaillithe.

Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

- Rialáil: Rialáil agus córais chomhlíonta comhshaoil éifeachtacha a chur i bhfeidhm, chun dea-thorthaí comhshaoil a bhaint amach agus díriú orthu siúd nach mbíonn ag cloí leo.
- Eolas: Sonraí, eolas agus measúnú ardchaighdeáin, spriocdhírithe agus tráthúil a chur ar fáil i leith an chomhshaoil chun bonn eolais a chur faoin gcinnteoireacht.
- Abhcóideacht: Ag obair le daoine eile ar son timpeallachta glaine, táirgiúla agus dea-chosanta agus ar son cleachtas inbhuanaithe i dtaobh an chomhshaoil.

I measc ár gcuid freagrachtaí tá:

CEADÚNÚ

- Gníomhaíochtaí tionscail, dramhaíola agus stórála peitril ar scála mór;
- Sceitheadh fuíolluisce uirbigh;
- Úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe;
- Foinsí radaíochta ianúcháin;
- Astaíochtaí gás ceaptha teasa ó thionscal agus ón eitlíocht trí Scéim an AE um Thrádáil Astaíochtaí.

FORFHEIDHMIÚ NÁISIÚNTA I LEITH CÚRSAÍ COMHSHAOIL

- Iniúchadh agus cigireacht ar shaoráidí a bhfuil ceadúnas acu ón GCC;
- Cur i bhfeidhm an dea-chleachtais a stiúradh i ngníomhaíochtaí agus i saoráidí rialáilte;
- Maoirseacht a dhéanamh ar fhreagrachtaí an údaráis áitiúil as cosaint an chomhshaoil;
- Caighdeán an uisce óil phoiblí a rialáil agus údaruithe um sceitheadh fuíolluisce uirbigh a fhorfheidhmiú
- Caighdeán an uisce óil phoiblí agus phríobháidigh a mheasúnú agus tuairisciú air;
- Comhordú a dhéanamh ar líonra d'eagraíochtaí seirbhíse poiblí chun tacú le gníomhú i gcoinne coireachta comhshaoil;
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaol.

BAINISTÍOCHT DRAMHAÍOLA AGUS CEIMICEÁIN SA CHOMHSHAOL

- Rialacháin dramhaíola a chur i bhfeidhm agus a fhorfheidhmiú lena n-áirítear saincheisteanna forfheidhmithe náisiúnta;
- Staitisticí dramhaíola náisiúnta a ullmhú agus a fhoilsiú chomh maith leis an bPlean Náisiúnta um Bainistíocht Dramhaíola Guaisí;
- An Clár Náisiúnta um Chosc Dramhaíola a fhorbairt agus a chur i bhfeidhm;
- Reachtaíocht ar rialú ceimiceán sa timpeallacht a chur i bhfeidhm agus tuairisciú ar an reachtaíocht sin.

BAINISTÍOCHT UISCE

- Plé le struchtúir náisiúnta agus réigiúnacha rialachais agus oibriúcháin chun an Chreat-treoir Uisce a chur i bhfeidhm;
- Monatóireacht, measúnú agus tuairisciú a dhéanamh ar chaighdeán aibhneacha, lochanna, uiscí idirchreasa agus cósta, uiscí snámha agus screamhuisce chomh maith le tomhas ar leibhéil uisce agus sreabhadh abhann.

EOLAÍOCHT AERÁIDE & ATHRÚ AERÁIDE

- Fardail agus réamh-mheastacháin a fhoilsiú um astaíochtaí gás ceaptha teasa na hÉireann;
- Rúnaíocht a chur ar fáil don Chomhairle Chomhairleach ar Athrú Aeráide agus tacaíocht a thabhairt don Idirphlé Náisiúnta ar Ghníomhú ar son na hAeráide;
- Tacú le gníomhaíochtaí forbartha Náisiúnta, AE agus NA um Eolaíocht agus Beartas Aeráide.

MONATÓIREACHT AGUS MEASÚNÚ AR AN GCOMHSHAOL

- Córais náisiúnta um monatóireacht an chomhshaoil a cheapadh agus a chur i bhfeidhm: teicneolaíocht, bainistíocht sonraí, anailís agus réamhaisnéisiú;
- Tuairiscí ar Staid Thimpeallacht na hÉireann agus ar Tháscairí a chur ar fáil;
- Monatóireacht a dhéanamh ar chaighdeán an aeir agus Treoir an AE i leith Aeir Ghlain don Eoraip a chur i bhfeidhm chomh maith leis an gCoinbhinsiún ar Aerthruailliú Fadraoin Trasteorann, agus an Treoir i leith na Teorann Náisiúnta Astaíochtaí;
- Maoirseacht a dhéanamh ar chur i bhfeidhm na Treorach i leith Torainn Timpeallachta;
- Measúnú a dhéanamh ar thionchar pleananna agus clár beartaithe ar chomhshaol na hÉireann.

TAIGHDE AGUS FORBAIRT COMHSHAOIL

- Comhordú a dhéanamh ar ghníomhaíochtaí taighde comhshaoil agus iad a mhaoiniú chun brú a aithint, bonn eolais a chur faoin mbeartas agus réitigh a chur ar fáil;
- Comhoibriú le gníomhaíocht náisiúnta agus AE um thaighde comhshaoil.

COSAINT RAIDEOLAÍOCH

- Monatóireacht a dhéanamh ar leibhéil radaíochta agus nochtadh an phobail do radaíocht ianúcháin agus do réimsí leictreamaighnéadacha a mheas;
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha;
- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíochta;
- Sainseirbhísí um chosaint ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

TREOIR, ARDÚ FEASACHTA AGUS FAISNÉIS INROCHTANA

- Tuairisciú, comhairle agus treoir neamhspleách, fianaise-bhunaithe a chur ar fáil don Rialtas, don tionscal agus don phobal ar ábhair maidir le cosaint comhshaoil agus raideolaíoch;
- An nasc idir sláinte agus folláine, an geilleagar agus timpeallacht ghlan a chur chun cinn;
- Feasacht comhshaoil a chur chun cinn lena n-áirítear tacú le hiompraíocht um éifeachtúlacht acmhainní agus aistriú aeráide;
- Tástáil radóin a chur chun cinn i dtithe agus in ionaid oibre agus feabhsúchán a mholadh áit is gá.

COMHPHÁIRTÍOCHT AGUS LÍONRÚ

Oibriú le gníomhaireachtaí idirnáisiúnta agus náisiúnta, údaráis réigiúnacha agus áitiúla, eagraíochtaí neamhrialtais, comhlachtaí ionadaíocha agus ranna rialtais chun cosaint chomhshaoil agus raideolaíoch a chur ar fáil, chomh maith le taighde, comhordú agus cinnteoireacht bunaithe ar an eolaíocht.

BAINISTÍOCHT AGUS STRUCHTÚR NA GNÍOMHAIREACHTA UM CHAOMHNÚ COMHSHAOIL

Tá an GCC á bainistiú ag Bord lánaimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóir. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inbhunaitheacht i leith Cúrsaí Comhshaoil
- An Oifig Forfheidhmithe i leith Cúrsaí Comhshaoil
- An Oifig um Fhianaise agus Measúnú
- An Oifig um Chosaint ar Radaíocht agus Monatóireacht Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tugann coistí comhairleacha cabhair don Ghníomhaireacht agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair imní agus le comhairle a chur ar an mBord.

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An Ghníomhaireacht um Chaomhnú Comhshaoil

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