



CIRCULAR ECONOMY PROGRAMME

The Driving Force for Ireland's Move to a Circular Economy



CONSULTATION PAPER

Regulation 27(7)

National By-Product Criteria

for

Greenfield soil and stone used in developments.

This consultation paper has been developed by the Environmental Protection Agency (EPA) providing a rationale for the development of draft *national* by-product criteria for soil and stone from greenfield source sites being used in authorised developments.



FOREWORD

Greenfield soil and stone is being *notified* to the Agency as a *by-product* material for use in developments that have *attained* planning permission or have been *declared* as being *exempt* from the need for planning permission. This type of notification has been increasing steadily over the years and currently is one of the top two materials being notified to the Agency. Notifications to-date have been assessed and determined on a *case-by-case basis*. This consultation paper proposes a departure from this system by putting in place *National By-Product Criteria*. These criteria will apply to the use of by-product soil and stone, which has been sourced from greenfield sites, in a development which has been duly authorised i.e., the development has planning permission granted *or* has attained a Section 5 Declaration of Exemption from the Planning Authority. This will put in place a self-assessment/notification system and remove the need for case-by-case notifications.

1. INTRODUCTION

1.1 What does the term ‘soil and stone’ mean?

Excavation or dredge spoil comprising natural materials of clay, silt, sand, gravel or stone and which comes within the meaning of inert material¹.

1.2 What does the term ‘uncontaminated soil and stone’ mean?

Essentially relates to virgin soil or soil that is equivalent to virgin soil².

1.3 What does the term ‘contaminated soil and stone’ mean?

Soil and stone that contains anthropogenic or man-made substances (such as rubble, concrete, bricks, metal and bitumen) that are not natural to the environment from which the material was extracted³. Soil and stone that contains invasive plant species e.g., *Japanese knotweed*.

Note: Any contaminated soil and stone *identified* at a site should be *excluded* from the area from which *by-product* soil and stone is proposed to be excavated. This will allow for (i) the by-product greenfield soil and stone to be *protected* from any cross contamination with brownfield or contaminated material, and (ii) for the greenfield material to be dispatched off site as by-product. The map of the by-product source site should be updated to *exclude* any brownfield areas or areas in which contaminated soil and stone has been identified e.g. imported made ground. Reference **Section 3.5** below for further information on the potential route for this contaminated soil and stone.

1.4 What does the term ‘greenfield’ mean?

Land that has not been previously developed.

1.5 What does the term ‘greenfield soil and stone’ mean?

Soil and stone from land that has not been previously developed and is not contaminated soil and stone⁴.

Note: the presence of *made ground* at a potential source site can indicate development. If made ground is detected at the source site and this comprises soil and stone imported from a *different site* this *does not meet* the description of greenfield soil and stone. The presence of made ground would also call into question the status of the source site as a greenfield site. Reference **Section 3.5** below for further information on the potential route for any areas of potentially contaminated soil and stone detected at the site.

1.6 What is a ‘development’?

Section 3 of the Planning and Development Act 2000 states that: “*development*” means, except where the context otherwise requires, the carrying out of any works on, in, over or under land or the making of any material change in the use of any structures or other land.

1.7 What is an ‘exempted development’?

Section 4 of the Planning and Development Act 2000, as amended, describes exempted development.

¹Source: Glossary Section of <https://www.epa.ie/publications/compliance--enforcement/waste/Guidance-on-Waste-Acceptance-Criteria-at-Authorised-Soil-Recovery-Facilities.pdf>

² Reference footnote No. 1 above.

³ Reference footnote No. 1 above.

⁴ Reference footnote No. 1 above.

Exempted development is development for which planning permission is not required. Categories of exempted development are set out in planning law ([particularly in Schedule 2 of the Planning and Development Regulations, 2001](#)). There are certain limitations to categories of exemptions. For example, the Class 11 exemption in Part 3 of Schedule 2 applies to development including land reclamation of land *only used* for the purposes of agriculture or forestry.

1.8 [What is a 'Section 5 Declaration of Exemption'?](#)

In accordance with Section 5 of [Planning and Development Act, 2000](#) any person may request a declaration from the local authority as to whether development is exempted from requirement for planning permission or not⁵. This declaration is often referred to as a Section 5 Declaration of Exemption.

Note: When a Section 5 Declaration of Exemption request is made to the Planning Authority, it is essential that the intention to accept a *specific* quantity of by-product soil and stone from specific sources be specified. While *not* a statutory requirement under the planning legislation, this information *will ensure* that the Planning Authority are being *made aware* of the quantity of soil and stone from specific source locations that is intended to be accepted at the development and are *provided the opportunity* to make a decision on that basis. As such, the necessary information will be presented to support by-product status of the material.

1.9 [What type of development requires planning permission?](#)

Developments other than exempted developments require planning permission to be granted by the planning authority *prior to* the commencement of the development.

1.10 [What is a 'production process', a 'product' and a 'production residue'?](#)

A production process is a process which *deliberately* creates a product e.g., the production of 50 housing units at a greenfield site. A product is all material that is *deliberately* created in a production process e.g., 50 housing units⁶.

A production residue is material that is *not deliberately* produced in a production process but its production was unavoidable; the production residue may *or* may not be waste⁷ e.g. greenfield soil and stone from the excavation phase of the production process (the greenfield soil and stone was unavoidably produced as a consequence of the production of 50 housing units). A production residue that *meets* the requirements of the National By-Product Criteria is a *by-product*.

1.11 [What is a 'producer'?](#)

In the context of this paper, producer means the holder who transfers greenfield soil and stone to another holder for the first time as a by-product material.

The producer is the person with *overall* responsibility, e.g. the owner of a greenfield development *or* the person who has been *designated* with the responsibility to act on the behalf of the person with overall responsibility e.g. a main contractor.

⁵ Source - South Dublin County Council: [Exempted Development - SDCC](#)

⁶ Source – Section 1.2.1 of Guidance on the interpretation of key provisions of Directive 2008/98/EC on waste (EC, June 2012) https://ec.europa.eu/environment/pdf/waste/framework/guidance_doc.pdf

⁷ Source – Section 1.2.1 of Guidance on the interpretation of key provisions of Directive 2008/98/EC on waste (EC, June 2012) https://ec.europa.eu/environment/pdf/waste/framework/guidance_doc.pdf

The producer with overall responsibility or designated responsibility will *sign* the Statement of Conformity required by the proposed National By-Product Criteria for by-product greenfield soil and stone leaving the site of generation. This sign-off will provide *evidence* that the soil and stone dispatched to the development in which it will be used *meets* the National By-Product Criteria.

Note: A producer will be the notifier of the by-product and is responsible for the completion of the Statement of Conformity, attaining a signed End User's Declaration, registering the by-product, working with the end user to close out any Non-Conformance Reports, keeping a record of any non-conformance reports issued by the end user and maintaining the by-product file.

1.12 What is a 'Statement of Conformity'?

The *producer* of greenfield soil and stone *completes* and *signs* a Statement of Conformity which is *evidence* that the soil and stone generated as a by-product of a production process, for which they are responsible, meets the National By-Product Criteria. **Reference Attachment A for a sample Statement of Conformity.**

The *producer* must ensure that *only* by-product greenfield soil and stone that meets the National By-Product Criteria is dispatched from the site of generation to the end user's development, for which they are an *approved supplier* of notified soil and stone. The producer becomes an approved supplier when the *end user* signs an End User's Declaration, described in **Section 1.14**, which covers this transfer.

The Statement of Conformity will comprise a record of the key information in connection with the material's by-product status. This includes producer details, the material quality, the production process and the end-use which forms part of a development. The Statement of Conformity will include the information required by *both* Declarations of Soil Quality (civil and environmental) which are currently used in the case-by-case notification system. The producer *retains* the signed Statement of Conformity for their record and the producer will ensure *each load* of by-product material delivered to an end use development will be *accompanied by a copy* of this signed Statement of Conformity.

Note: The Statement of Conformity *does not* have to be completed for every load e.g. every 21-tonne load being dispatched to the end use development; alternatively, it can be completed for the estimated quantity of greenfield soil and stone to be yielded from the *entire production process e.g. housing development*. A *copy* of this overall Statement of Conformity for the production process will travel with *every load* being dispatched to the end use development as *supporting evidence* that the load meets the National By-Product Criteria.

The end user must *only* accept:

- by-product greenfield soil and stone from a producer they have confirmed to be an *approved supplier* i.e. where the producer has a record of a signed End User's Declaration for this material; and
- greenfield soil and stone deliveries which are accompanied by a *signed Statement of Conformity*.

Note: for the purpose of tracking and compliance check the end user will be required to maintain a log of *the quantity* of by-product received against a signed End User's Declaration. The actual quantity of by-product received may be less than but *not greater than* the quantity quoted on any End User's Declaration. If a greater quantity is required *another* End User's Declaration will need to be signed to cover this excess quantity.

The above checks ensure the end user *only accepts* by-product greenfield soil and stone that meets National By-Product Criteria *and* the needs for their development *prior to* being permitted entry into *their* development site.

1.13 What is an End User?

End user means the *final* holder of the greenfield soil and stone who has the intention of using the quantity of material accepted at a development which has been *granted* planning permission or for which a Section 5 Declaration of Exemption has been *issued* by the Planning Authority. The end user shall only use the notified material where this use *meets the needs* of the development to the satisfaction of the Planning Authority.

1.14 What is an 'approved supplier'?

The *producer* will contact the *end user* of the soil and stone material being notified for use at a development and attain a completed and signed End User's Declaration. This declaration is currently being used as part of the case-by-case notification process and is evidence that the end user requires this notified material for a specific development. Amendments have been proposed to the current declaration in order to accommodate the National By-Product Criteria **reference Attachment B.**

Once an *end user* signs this declaration it indicates that the *end user has approved* this producer as an *approved supplier* for the material notified to the end user's development.

Producer + a signed End User's Declaration = an approved supplier

1.15 What is a 'Non-Conformance Report'?

Non-Conformance Reports can be initiated by the *end user* or an enforcement officer carrying out an *inspection/audit*. As such, a Non-Conformance Report can be addressed to the Producer or the End-User. **Reference a sample Non-Conformance Report in Attachment C.**

End user-initiated reports:

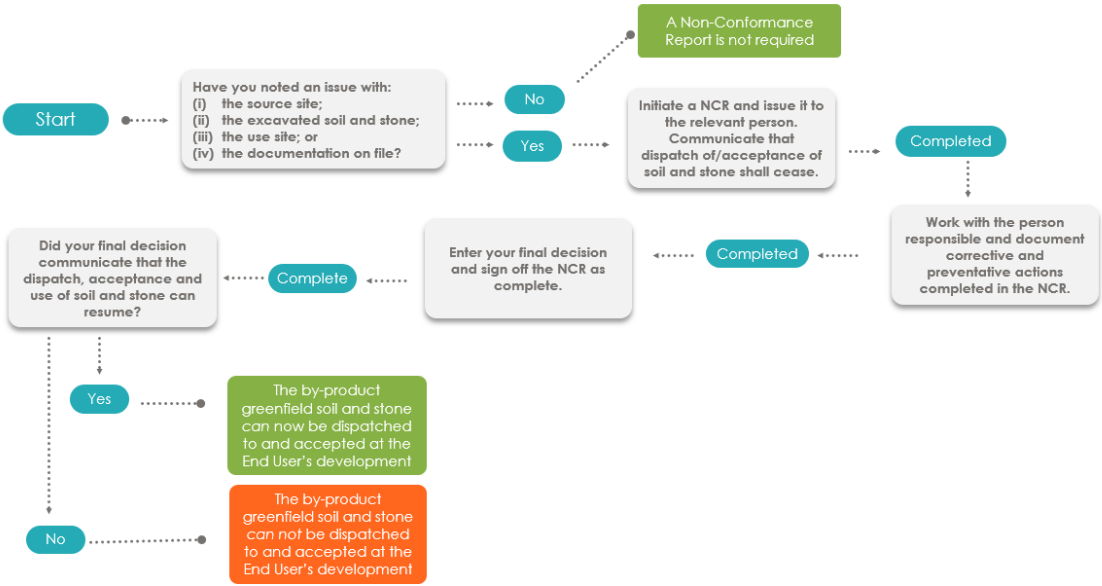
- If the *end user* finds that the producer is *not providing* greenfield soil and stone that meets the requirements of the Statement of Conformity, National By-Product Criteria or the End User's Declaration then the *end user* shall generate a Non-Conformance Report and inform the producer not to dispatch any more soil and stone to their development. The end user is responsible for the completion of the Non-Conformance Report.
- The end user will work with the producer to complete any required corrective and preventative actions to prevent a reoccurrence of this non-conformance. These actions shall be recorded by the end user in the Non-Conformance Report.

- Once the required actions have been completed the end user shall record their decision regarding whether the producer can (a) resume the dispatch of soil and stone in accordance with the signed End User's Declaration or (b) cease the dispatch of soil and stone from the source site to this development. Once the end user's decision has been recorded the end user shall sign-off the Non-Conformance Report as complete. The end user must promptly communicate this decision to the producer and supply the producer with a copy of the completed Non-Conformance Report.
- Non-Conformance Reports shall be maintained on file by the producer and the end user for inspection, if required, by an enforcement officer.

Enforcement Officer - initiated reports:

- An enforcement officer may note an issue with the source site or the destination site during an inspection/audit of that site e.g. a non-compliance with a condition of planning permission relating to the acceptance and use of soil and stone as part of the development;
- Enforcement officers may be from any regulatory body e.g. planning or waste enforcement officer.
- The enforcement officer can initiate a Non-Conformance Report *or* an equivalent document under their own regulatory system. Where an alternative form/system is used it will be important to ensure any request to cease activity and any allowance to resume activity on the site/development is documented to ensure these instructions form part of the site's record.
- An enforcement officer may issue a Non-Conformance Report regarding the *source site* where it is found that soil and stone being dispatched off-site as a non-waste does not have the appropriate waste authorisation, has not been registered as a by-product and/or is *not* conforming with the National By-Product Criteria.
- An enforcement officer may issue a Non-Conformance Report regarding the *destination site* where it was found that the (i) end use is not provided for by the conditions of granted planning permission/scope of the exemption or (ii) where soil and stone is being accepted at the development as a non-waste and the soil and stone has not been registered as a by-product and/or does not conform with the National By-Product Criteria.
- The same actions as described in the section above would apply.

Non-Conformance Report Flow Chart



2. LEGISLATIVE FRAMEWORK

2.1 What are By-Products?

By-products are substances/objects which *meet* the conditions of Regulation 27 of the European Union (Waste Directive) Regulations 2011-2020⁸.

These conditions are set out in Regulation 27(1) as follows:

“27. (1) the Agency shall take appropriate measures to ensure that a substance or object resulting from a production process the primary aim of which is not the production of that substance or object is considered not to be waste, but to be a by-product if the following conditions are met:

- (a) further use of the substance or object is certain;*
- (b) the substance or object can be used directly without any further processing other than normal industrial practice;*
- (c) the substance or object is produced as an integral part of a production process; and*
- (d) further use is lawful in that the substance or object fulfils all relevant product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts.”*

Regulation 27(2)(a) requires the holder of a by-product to *notify* the Agency and *seek a determination* on the matter from the Agency.

2.2 What are National By-Product Criteria?

Regulation 27(7) states that *“Where criteria have not been set at Union level, the Agency may establish detailed criteria on the application of the conditions laid down in paragraph 1 to specific substances or objects. The Agency shall notify the Commission of those detailed criteria in accordance with Directive (EU) 2015/1535 of the European Parliament and of the Council where so required by that Directive.”*⁹

Regulation 27(7) provides a mechanism which the Agency can use to produce *National By-Product Criteria* that could be applied to by-product greenfield soil and stone being used in developments. These National By-Product Criteria would potentially:

- eliminate the requirement for by-product greenfield soil and stone to be notified to the Agency on a *case-by-case* basis;
- eliminate the requirement for the Agency to make *case-by-case* determinations on multiple by-product notifications relating to greenfield soil and stone being used in developments;
- eliminate the requirement for the Agency to make a determination on the by-product decision *made by the producer* of the by-product in accordance with the National By-Product Criteria;
- provide a *standardised set of criteria* that could be applied to all by-product greenfield soil and stone being routed to developments;
- provide a *register open to public and local authority view*, hosted on the EPA website or equivalent, for the *producer* to enter/upload data regarding: identity and contact details of the notifier, identity of the producer, source of the material, type of material, quantity of material, Statement of Conformity, End User’s Declaration, identity of the end user,

⁸ Link: <https://www.irishstatutebook.ie/eli/2020/si/323/made/en/print?q=waste+directive>

⁹ Directive (EU) 2015/1535 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services (codification) <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015L1535&from=EN>

location of the end use, planning reference number/ Section 5 Declaration of Exemption and the producer's signed Statement of Conformity confirming that the material is compliant with the National By-Product Criteria;

- provide for a requirement that the producer *and* end user of the by-product maintain evidence of compliance with these National By-Product Criteria on record for inspection as required;
- provide for periodic audits of notifiers/producers or end users recorded on the register;
- provide a system where Non-Conformance Reports can be initiated by the end user to the producer regarding the material dispatched by the producer or by an auditor to an end user for material accepted by an end user.
- provide a system where a trend in Non-Conformance Reports may limit a producer's ability to dispatch by-product to an end user or the end user to accept by-product.
- provide a system where an enforcement officer can communicate to the Planning Authority if an end user has accepted soil and stone for use in a development that does not meet the requirements of the National By-Product Criteria.

3. PROPOSED NATIONAL BY-PRODUCT CRITERIA

The proposed national by-product criteria relates to:

Production process	<p>The production process is the <i>reason</i> for the development of the <i>greenfield</i> site e.g. a housing development. An <i>integral part</i> of the production process is the excavation of the greenfield site to attain the required ground levels for development. Greenfield soil and stone is a by-product from this production process as a result of the excavation activity.</p> <p>Requirement: An overall need to excavate <i>greenfield</i> soil and stone as part of a development.</p>
Notified material	<p>Uncontaminated soil and stone excavated at a greenfield source site.</p> <p>Requirement: <i>greenfield</i> source site yielding <i>greenfield</i> soil and stone.</p>
End use	<p>The end use must <i>form part of</i> a development which has been granted planning permission <i>or</i> which has been declared as exempt from the requirement to attain planning permission.</p> <p>Requirement: <i>Planning permission</i> for a development or a declaration of <i>exemption</i> from the need for planning permission.</p>

The criteria being proposed by the Agency to form part of the National Decision can be broken down in the sections of Regulation 27(1)(a) – (d) as follows:

Note: Reference Attachment D for *flow charts* which may be helpful when navigating the concepts described below.

3.1 Regulation 27(1)

“the Agency shall take appropriate measures to ensure that a substance or object resulting from a production process the primary aim of which is not the production of that substance or object is considered not to be waste, but to be a by-product if the following conditions are met”.

Proposed criteria include:

- The greenfield soil and stone *must be* generated from a production process e.g. a housing development.
- The soil and stone yielded from the production process *cannot* be the primary aim of the production process, the primary aim would be e.g. the production of housing units. The greenfield soil and stone should be a *production residue* of this production process.
- The producer will be required to *declare* the greenfield soil and stone to be a by-product from a production process via the sign-off of a *Statement of Conformity*.

3.2 Regulation 27(1)(a)

“further use of the substance or object is certain”.

Proposed criteria include:

- A completed *End User’s Declaration* has been signed by the end user of the greenfield soil and stone. This signed declaration will be maintained as *written evidence* on file that the end use of the greenfield soil and stone is *guaranteed* by the *end user*. The end user will be required to record the planning permission register number on this declaration or attach a copy of the Section 5 Declaration of Exemption signed by the Planning Authority.
- In the Section 5 declaration of exemption request submitted to the Planning Authority the end user will be required to inform the planning authority of the *quantity* of by-product soil and stone proposed for a *specific use* as part of the exempted development description and the *source* of this by-product material.
- The end user will also be required to confirm that the end use of the notified material satisfies the requirements of planning permission or does not exceed the scope of the exemption from the need for planning permission.
- This evidence will be made available to the Planning Authority and may be required to be presented during an inspection/audit of the producer and/or the end use development.

3.3 Regulation 27(1)(b)

“the substance or object can be used directly without any further processing other than normal industrial practice”.

Proposed criteria include:

- The greenfield soil and stone must be suitable for direct use in the notified development, without any further processing other than normal industrial practice.
- Modification of size or shape by mechanical treatment may be considered as normal industrial practice and as such does not prevent the soil and stones from being regarded as a by-product.
- Stockpiling at the site of generation in preparation of collection and transport to the end user may also be regarded as normal industry practice. However, stockpiling of soil and stone at the site of generation may require waste authorisation where the material has been stored for longer than six months and is no longer considered temporary storage and/or where there is *no certainty of use*.
- Any treatment techniques that address waste-related characteristics of the soil and stone, such as its contamination with components which are hazardous or not useful, would *prevent* classification as a non-waste¹⁰ e.g. sorting or treatments involving the removal of invasive plant species, anthropogenic material, brownfield soil and stone, made ground originally from another location.
- The *end user* will be required, *prior to* signing the *End User’s Declaration*, to assess the producer's ability to supply greenfield soil and stone which is *not contaminated* with anthropogenic material or invasive plant species and ensure the producer *is capable of* segregating by-product greenfield soil and stone to prevent *any cross contamination* with waste soil and stone, single case notified soil and stone or other waste material generated at the producer’s site. The *end user is responsible* for ensuring the quality of

¹⁰ Source Section 1.2.4 of the Guidelines on the interpretation of key provisions of Directive 2008/98/EC on waste (EC, June 2012).

by-product entering the end user's development is in accordance with the signed End User's Declaration.

3.4 Regulation 27(1)(c)

"the substance or object is produced as an integral part of a production process".

Proposed criteria include:

- The greenfield soil and stone is required to be *produced* as an *integral* part of a production process.
 - The greenfield soil and stone is required to be *made ready*¹¹ for further use through an integral part of a production process.
 - The greenfield soil and stone shall be site-won from the production process during excavation phase of the overall development.
- If the soil and stone leaves the site of generation in order to undergo further processing, this processing needs to be demonstrated as an integral part of the production process *and* to meet the requirements of Regulation 27(1)(b).

3.5 Regulation 27(1)(d)

"further use is lawful in that the substance or object fulfils all relevant product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts."

Proposed criteria include:

Source site, by-product and Statement of Conformity:

- The greenfield status of the source site must be *validated* as greenfield by the *producer*/designated qualified staff to ensure the soil and stone being excavated as part of the production process is from a greenfield site.

This investigation can be carried out by using historical mapping tools such as GeoHive¹², the State's Geospatial Data Hub.

The source site is declared to be greenfield by the producer as part of the Statement of Conformity.
- The greenfield soil and stone should be free of:
 - Invasive plant species;
 - Anthropogenic material or substances;
 - Made ground; and
 - Brownfield soil and stone.

Qualified staff shall be required to carry out investigations and ensure the soil and stone being excavated as part of the production process does not contain the constituents listed above.

Note: the above investigations may include (i) A site walk over and historical map check to ensure the site has an *absence* of invasive plant species and is a *greenfield* site, and (ii) if during excavations contaminated soil and stone is identified then this area shall be *excluded* from the source site that is associated

¹¹ Reference Section 1.2.5 of the Guidelines on the interpretation of key provisions of Directive 2008/98/EC on waste (EC, June 2012). Any further processing, that is normal industrial practice, required to make the by-product suitable for its further use needs to be an integral part of the production process. A by-product needs to be ready for its intended further use after it exits the production process.

¹² GeoHive: <https://webapps.geohive.ie/mapviewer/index.html>

with the by-product compliant with the *National By-Product Criteria*. This potentially contaminated soil and stone may be able to avail of a separate *single case by-product notification* if it can be demonstrated that the soil and stone is *below* the soil trigger levels described in Table 3.3 of the Guidance on waste acceptance criteria at authorised soil recovery facilities (EPA, January 2020)¹³.

- The by-product soil and stone is declared to be greenfield soil and stone by the *producer* as part of the Statement of Conformity. The Statement of Conformity includes a declaration that the soil and stone is suitable for use as part of the end use development from civil and environmental perspectives.
- The *end user will ensure* that they *are satisfied* that the producers investigation/testing systems are supportive of the producer receiving approved supplier status from the end user for the supply of greenfield soil and stone that meet National By-Product Criteria.

End User's Declaration, end use and development type:

- The end use development must be a development which has been *granted* planning permission or has been declared to be an *exempted development* which provides for the acceptance of the notified quantity of greenfield soil and stone as part of the development. This permission or exemption shall be to the satisfaction of the planning authority. The end user can only use the notified material *within* the site boundary of the development.

Note: The end user's *request* for a Section 5 Declaration of Exemption *must specify* (i) the *quantity* of by-product greenfield soil and stone being imported to the development, (ii) the nature of the greenfield soil and stone, (iii) the source of the greenfield soil and stone and (iv) the end use for the by-product greenfield soil and stone as part of the development.

The end user will declare these requirements have been met in the End User's Declaration.

- The *end user must approve* the producer as an *approved supplier* of greenfield soil and stone by *signing* the End User's Declaration. Once an *end user* makes a producer an approved supplier this is confirmation that *the end user is satisfied* the producer can supply by-product greenfield soil and stone which meets the National By-Product Criteria *and* the end users' requirements in accordance with their planning permission/exemption.

Control of by-product dispatch and acceptance:

- The producer shall only dispatch a quantity of notified by-product that is accompanied by a signed Statement of Conformity to a development that matches the description on the signed End User's Declaration.
- A producer will *not dispatch* by-product material to an end use development in the period a Non-Conformance Report is open or where a Non-Conformance Report has been completed with the instruction for the end user *not* to accept by-product soil and stone at the development.
- The end user shall ensure each delivery of by-product greenfield soil and stone:
 - must be accompanied by a *signed Statement of Conformity* which demonstrates the by-product greenfield soil and stone meets the National By-Product Criteria;
 - must be "goods matched" to a signed End User's Declaration;
 - must not exceed the quantity recorded as accepted on the end user's by-product acceptance log against a specific End User's Declaration; and

¹³ Source: [Guidance-on-Waste-Acceptance-Criteria-at-Authorised-Soil-Recovery-Facilities.pdf \(epa.ie\)](https://www.epa.ie/publications/default.aspx?category=12)

- must be listed on the *register* as *compliant* with National By-Product Criteria by the *notifier*.
- As described in **Section 1.15** above, the end user will *not accept* by-product material at their development that is the subject of an *open* Non-Conformance Report *or* where a *completed* Non-Conformance Report has the instruction *not* to import soil and stone for use in the development.

Other requirements that should be considered include:

3.6 Management System

Proposed criteria include:

- The producer of the greenfield soil and stone must meet the satisfaction of *the end user* as part of the *end user's approval* of the producer as an *approved supplier* of greenfield soil and stone that meet National By-Product Criteria. Once the end user signs the End User's Declaration the end user is declaring the producer is an approved supplier of by-product greenfield soil and stone to *their* development.
The producer must keep the following documents as a record for future inspection:
 - Statement of Conformity;
 - End User's Declaration;
 - Log of the destination and quantity of by-product material leaving the site; and
 - Any Non-Conformances issued.
- The end user must *manage the greenfield soil and stone accepted and its use in the development* to demonstrate compliance with the National By-Product Criteria, planning legislation and any requirements of the development's granted planning permission or declaration of exemption.
The end user must keep the following documents as a record for future inspection:
 - Statement of Conformity;
 - End User's Declaration;
 - Log of the quantity of by-product accepted at the site from which source sites; and
 - Any Non-Conformances issued.
- The requirements of the documentation listed above, and on-site material management practices will require the end user to complete:
 - The checks *prior to* signing an End User's Declaration and approving a supplier, which shall include: (i) checking the source site and nature of the material, (ii) checking the Statement of Conformity, (iii) ensuring the granted planning permission provides for the use of the quantity of soil and stone proposed for acceptance or (iii) that the local authority were made aware of the proposed use of this quantity of soil and stone in the proposal for exempted development and that this is within the scope of the Section 5 Declaration of Exemption.
 - The acceptance control of the by-product greenfield soil and stone accepted for use at the end use development which includes checks regarding: (i) Statement of Conformity, (ii) Register, (iii) End User Declaration and (iv) checking for the status of any Non-Conformance Reports.
 - The quarantining of non-conforming loads;
 - The generation, actioning and follow through to decision and sign-off of Non-Conformance Reports;
 - The communication to the producer of any pausing/revoking/reinstatement of approved suppliers' status;

- The communication to the producer when the maximum quantity of soil and stone as specified on the signed End User's Declaration has been reached and the instruction to not send any further loads until another End User's Declaration has been signed by the end user.
Note: any future signoffs must also come under the scope of planning permission/exemption.
- Training of staff.
- A *statement of conformity* signed by the producer shall accompany each load of by-product greenfield soil and stone being dispatched from the site of generation.
- The producer and end user shall give competent authorities access to their document management systems and checklists on request.
- The end user shall ensure:
 - Greenfield soil and stone:
 - Only by-product greenfield soil and stone is accepted from *approved suppliers*.
 - Only by-product greenfield soil and stone is accepted that is accompanied by a signed *Statement of Conformity* which matches with a signed *End User's Declaration*.
 - End use for the greenfield soil and stone:
 - The *end use* for the *specific quantity* of greenfield soil and stone notified and approved for use by the end user via a signed End User's Declaration must be provided for, to the Planning Authority's satisfaction, in the:
 - grant of planning permission for the development; or
 - in the end user's description of the development in a request made under Section 5 which the Planning Authority subsequently declared to be exempted development.

4. EXAMPLES OF THE NATIONAL BY-PRODUCT CRITERIA IN PRACTICE¹⁴

4.1 Greenfield soil and stone from a housing development – *successful outcome*.

➤ Production process:

- A development consisting of 50 No. Housing Units has been granted planning permission by the local authority. A developer has been appointed as a main contractor with *responsibility* for the *entire* development.
- The area *within* the site boundary of the development is a *greenfield site* which was previously used for the grazing of animals only. The main contractor *validated* the sites *past and present* greenfield status using the GeoHive historical mapping tool.
- The main contractor also did a *site walkover* and confirmed there was *no invasive plant species within or near* the site boundary which would cause the soil and stone to be infested with invasive plant species *or parts* of invasive plants species e.g. rhizomes of *Japanese knotweed*.
- As part of this development, it is *required to excavate soil and stone* in order to attain specific levels for the construction of foundations for the housing units.
- This production process is predicted to yield *Z volume* of *site-won* soil and stone.
- This greenfield soil and stone has been visually inspected and has been found to be uncontaminated with any anthropogenic materials.
- The producer is an *approved supplier* of this material to a *specific development granted planning permission at a specific end use location*.
 - The end user visited the source site and confirmed that they were satisfied with the greenfield status of the site, the absence of invasive plant species, the nature of the soil and stone being generated, the producer's ability to control this by-product on-site, the content of the Statement of Conformity and the overall quantity of by-product predicted as being excavated from within the site boundary of the development.
 - The *end user* confirmed the above in signing an *End User Declaration* in which they committed to accepting *Z volume* of the *greenfield* soil and stone generated *at this source site* for use in their development which has been *granted planning permission*.
- The *producer* signed a *Statement of Conformity* for the by-product material which provides the overall quantity of greenfield soil and stone generated with a *unique identifier* and a *signed declaration* confirming it meets the requirements of the National By-Product Criteria.
- The *producer* completed an entry on the public *register* for the source to end use location pathway, the persons responsible at each location and the planning register reference number associated with the end use development.

➤ End use:

- The end user has been granted *planning permission* for the development at the end use location.
- The end user stated their *need* for the specific quantity of soil and stone from the source site to be *in accordance with the conditions* of their planning permission in the signed *End User Declaration*.
- The end user receives a communication from the producer *to expect a delivery of Z volume* of greenfield soil and stone from their *approved supplier* working on a production process in the nearby village for 50 No. housing units.

¹⁴ These examples are hypothetical scenarios for the purposes of demonstrating successful and unsuccessful outcomes based on the National By-Product Criteria presented in this consultation paper.

- The end user checks:
 - they have inspected and *were satisfied with* this source site;
 - they have *signed* an End User Declaration;
 - the *register entry* for this source to end use pathway; and
 - that there is no open *Non-Conformance Report(s)* for this source site or any instruction to *pause/revoke* the producer's approved supplier status.

The end user *confirms they require* this load of by-product material.

- The approved supplier arrives at the end use development and this initiates actions under the end user development's *management system* as required under their planning permission.
- The *Statement of Conformity* and register is inspected by *trained* personnel, and it is confirmed the load meets the requirements of the end user's planning permission for the development and is *permitted entry* to the development's unloading area.
- The soil and stone *is used* in the development at the end use location in accordance with the conditions of planning permission.

All the above information indicates compliance with national criteria for being a by-product and as such, the overall outcome is considered successful.

4.2 Greenfield soil and stone from a commercial development – *unsuccessful outcome.*

➤ Production process:

- A development consisting of a single warehouse has been granted planning permission by the local authority. A developer has been appointed as a main contractor with *responsibility* for the *entire* development.
- The area *within* the site boundary of the development has an old concrete base that needs to be removed as part of digging out the site to foundation level. Some parts of the site are greenfield, and some parts are brown field. The foundations need to be excavated under the slab of concrete, the *brownfield* portion of the site.
- A neighbour next door to the construction site has *expressed interest* in the material as they have a need to fill in a substantial dip in the field beside their house and feels that this material will be a good fit for that purpose. They have stated that they *don't need planning permission* as they've done this before and that worked out well.
- The following steps were not completed or checked:
 - Validation that the site of excavation is not a greenfield site by completing a site walk over;
 - Registration of the source to end use pathway;
 - Completion and sign-off of an End User Declaration; and
 - Completion and sign-off of a Statement of Conformity.
- This production process is predicted to yield *Z volume* of *site-won* soil and stone.
- This greenfield soil and stone has been visually inspected and has been found to contain some concrete and metal reinforcing bar (rebar) which would be expected due to the concrete slab needing to be demolished. The end user is confident they'll be able to pick out most of the concrete and rebar.

➤ End use:

- The end user has confirmed they *don't need planning* for their development at the end use location and they need *Z Volume* of the material generated at the source

site. The end user opens the field in question and informs the producer to deliver the material as it arises.

- The end user checks:
 - they have inspected and *were satisfied with* this source site;
 - They are satisfied they'll be able to pull out any problematic concrete and rebar.
- The end user does not check:
 - that they have *signed* an End User Declaration;
 - that the producer has made a *register entry* for this source to end use pathway;
 - that they have a *Statement of Conformity* for the material being accepted.
- The material *is delivered* to the end use location over a month.
- Once all the material has been delivered the end user moves it to fill the dip in the field. The end user decided to leave the concrete and rebar in situ as it would've taken too long to remove it.
- A neighbour makes a *compliant* to the local authority as the dust from the activity is affecting their family and they are concerned about the contours in the field being adapted and any associated run-off risk to their property. The local authority inspects the end use site and question why an application for a certificate of authorisation and/or planning permission hasn't been made.
- The environment section informs the planning section of the development.
- The local authority issues notices to the end user to cease the activity and remove the material from the land for reasons which include the development being regarded as an *unauthorised development* by the Planning Authority.
- The end user loaded the material for dispatch to a waste authorised facility by a haulier with an appropriate waste collection permit.

All of the above information indicates lack of compliance with national criteria for being a by-product and as such, the overall outcome is considered unsuccessful.

5. SUBMISSION OF YOUR OBSERVATIONS/SUGGESTIONS:

In order to get the most out of your feedback it would be helpful for your feedback to be submitted under specific categories (1 – 8) as set out below:

Category No.	Submission Category Description:	
1.	Notified material	Greenfield soil and stone
2.	Production process	Development of a greenfield site that requires excavation.
3.	End use and lawfulness	Use as part of a development that has been granted planning permission or which is in receipt of a Section 5 Declaration of Exemption (specific to the nature and quantity of material required).
4.	Statement of Conformity	To be completed by the producer and checked by the end user.
5.	End Use Declaration	To be completed by the end user and checked by the producer.
6.	Register	To be completed by the producer and checked by the end user. The register will be available for the local authority to check e.g. the planning details relating to specific end use developments.
7.	Non-Conformance Reports	Reports can be raised by: <ul style="list-style-type: none">- the end user in relation to non-conforming material received from the producer/approved supplier.- An enforcement officer e.g. the local authority in relation to non-conforming material being used at the end use location, the end use being unauthorised or the end use not being provided for in the scope of the planning permission/exemption for the development.
8.	Other	

Please email your observations/suggestions which will work towards the production of national by-product criteria that will provide a mechanism for greenfield soil and stone to be used at developments *whilst* demonstrating compliance with Regulation 27(1)(a)-(d).

Email: byproduct@epa.ie

Email title: National By-Product Criteria – Greenfield Soil and Stone.

Feedback: Break your feedback into categories 1- 8 above.

Deadline: **30th September 2022.**

Attachment A

Sample Statement of Conformity

1	<p><i>Producer of the greenfield soil and stone:</i></p> <p>Producer name: _____</p> <p>Address: _____</p> <p>Contact person: _____</p> <p>Tel. _____</p> <p>E-mail: _____</p>
2	<p><i>Production process:</i></p> <p>(a) Description of the production process i.e., the overall reason for the excavation: _____</p> <p>(b) The excavation of greenfield soil and stone is an integral part of the production process. Tick to confirm the above statement <input type="checkbox"/></p> <p>(c) Address of the greenfield site being excavated: _____</p> <p>(d) Grid co-ordinates that relate to the greenfield site being excavated: Grid co-ordinates: N _____ E _____</p> <p>(e) A map of the production process, which indicates the <i>site boundary</i> from within which the greenfield soil and stone will be excavated, has been attached to this Statement: Tick to confirm map attachment <input type="checkbox"/> <u>Note:</u> ensure you indicate in this map the area which relates specifically to the <i>excavation</i> of the greenfield soil and stone.</p> <p>(f) A site walk over has been completed. No evidence of the site being brownfield has been found. No anthropogenic materials/objects/substances have been found. No invasive species or vectors have been detected. Tick to confirm the above statement <input type="checkbox"/></p> <p>(g) Historical aerial maps of the site have been reviewed and there is no evidence that the site has ever been partially/wholly brownfield. <u>Note:</u> mapping tools such as GeoHive Map Viewer can be used for this purpose. Tick to confirm the above statement <input type="checkbox"/></p>
3	<p><i>Greenfield Soil and Stone:</i></p> <p>(a) The substance or object being declared as by-product is <i>greenfield</i> soil and stone. Tick to confirm the above statement <input type="checkbox"/></p> <p>(b) The greenfield soil and stone is a by-product production residue from the above production process and <i>not</i> the primary aim(s) of the production process. Tick to confirm the above statement <input type="checkbox"/></p> <p>(c) The quantity of the greenfield soil and stones consignment in cubic metres: _____ m³. <u>Note:</u></p> <ul style="list-style-type: none"> - This quantity relates to the maximum quantity of greenfield soil and stone that is <i>estimated</i> to be generated as a by-product of the <i>overall</i> development. - This quantity shall <i>match</i> the quantity recorded on the register. - Should it be the case that the production process yields in <i>excess</i> of this figure, <i>another</i> Statement of Conformity shall be completed along with <i>another</i> entry on the register. <p>(d) I declare that this greenfield soil and stone can be demonstrated to be uncontaminated i.e., it is virgin soil which is <i>free from</i> anthropogenic materials, invasive species and vectors. Tick to confirm the above statement <input type="checkbox"/></p> <p>(e) The greenfield soil and stone is classified as engineering class: _____</p> <p>(f) I declare that the greenfield soil and stone is suitable, from an environmental and civil perspective, for <i>direct use</i> at the end destination <i>without</i> any further processing. Tick to confirm the above statement <input type="checkbox"/></p> <p>(g) The greenfield soil and stone consignment meet the National By-Product Criteria.</p>

	<p>Tick to confirm the above statement <input type="checkbox"/></p>
4	<p><i>End Destination/Use Location:</i></p> <p>(a) Description of the <i>overall</i> development taking place at the use location:</p> <p>_____</p> <p>(b) Description of the <i>specific use</i> for the greenfield soil and stone as part of this development:</p> <p>_____</p> <p>(c) Address of the end use location:</p> <p>_____</p> <p>(d) End user contact details: End User's name: Address: Contact person: Tel. E-mail:</p> <p>(e) Grid co-ordinates that relate to the development: Grid co-ordinates: N _____ E _____</p> <p>(f) A map of the development, which indicates the <i>site boundary</i> within which the greenfield soil and stone will be used, has been attached to this Statement: Tick to confirm map attachment <input type="checkbox"/> <u>Note:</u> ensure you indicate in this map the area which relates specifically to the area within which the greenfield soil and stone will be used.</p> <p>(g) The End User's Declaration has been completed and signed <i>by the end user</i> responsible for the development of the use location. The End User's Declaration provides evidence that the by-product is <i>certain</i> to be used by the end user at a development <i>granted</i> planning permission <u>or</u> declared as <i>exempt</i> from the requirement to attain planning permission by the Planning Authority. The End User's Declaration has been attached to this Statement of Conformity. Tick to confirm the above statement <input type="checkbox"/></p> <p>(h) If instructed by an end user or enforcement officer, I shall <i>cease dispatch</i> of by-product to the development immediately until I receive evidence that a non-conformance report has been fully signed off by the end-user or enforcement officer with an instruction that I can resume the dispatch of by-product to the development. I shall work with the end user or enforcement officer as necessary to complete corrective and preventative actions to ensure the supply of by-product which meets the National By-Product Criteria. Tick to confirm the above statement <input type="checkbox"/></p> <p>(i) I shall not supply a quantity of by-product <i>greater than</i> that recorded on the End User's Declaration or this Statement of Conformity to the end user's development. Tick to confirm the above statement <input type="checkbox"/></p>
5	<p>The greenfield soil and stone consignment meets the requirements referred to in paragraphs 1 to X of Section X of National By-Product Criteria No. 002/2022. Tick to confirm the above statement <input type="checkbox"/></p>
6	<p>Producer Declaration: I certify that the above information is complete and correct to the best of my knowledge:</p> <p>Name: _____</p> <p>Organisation: _____</p> <p>Date: _____</p> <p>Signature: _____</p> <div style="border: 1px solid black; width: 200px; height: 60px; margin-left: 400px; display: flex; align-items: center; justify-content: center;"> Company Seal: </div>

Attachment B – Sample End User’s Declaration

To whom it may concern,

I declare that I am the *end user* and I require [quantity] _____ cubic metres (m³) of *greenfield* soil and stone from the *producer* _____. The by-product is to be produced at [source _____ location _____ address _____].

I am satisfied that the *source location* from which the soil and stone is to be excavated is a greenfield site. I will use the quantity of soil and stone referenced above for [describe what the by-product material will be used for] _____ at [use location address] _____.

I am satisfied that:

- ☐ The use of this quantity of by-product soil and stone as described above is *provided for* in the planning permission *granted* for the development at the above use location.
Planning Permission Register Reference Number: _____
Planning Permission Expiry Date: _____
Description of how the planning permission provides for the use of this by-product: _____

I have attached:

- ☐ Evidence of granted planning permission and a drawing which indicates the *site boundary* of the development *and* the area within the development boundary where the by-product is to be used; and
- ☐ A copy of the communication to the Planning Authority informing them of my intention to use the quantity of greenfield soil and stone as described above as part of the development.

OR

- ☐ The use of this quantity of by-product soil and stone was specifically set-out in an application for a Section 5 Declaration of Exemption to the Planning Authority and a Section 5 Declaration of Exemption was issued by the Planning Authority.

Section 5 Declaration of Exemption Register Reference Number: _____

Declaration expiry date, where applicable: _____

I have attached:

- ☐ A copy of the *application* for Section 5 Declaration of Exemption submitted to the Planning Authority inclusive of the *map* of the use location which indicates its site boundary and the *description of the use of the quantity* of by-product as described above;
- ☐ A copy of the Section 5 Declaration of Exemption issued by the Planning Authority; and
- ☐ A copy of the communication to the Planning Authority informing them of my intention to use the quantity of greenfield soil and stone as described above as part of the development exempted from the requirement to attain planning permission.

I declare that if it is the case that I no longer wish to use this by-product material as described above that I will contact the Planning Authority and the Agency in order for the register to be updated with this information.

By signing this declaration, I confirm that the producer is an *approved supplier* of this by-product to the above use location.

I give consent to the EPA to copy this declaration for its own use and make it available for inspection by relevant staff and openly available to the public on the EPA website.

Signed:

Print Name: _____

Company Name: _____

Company Address: _____

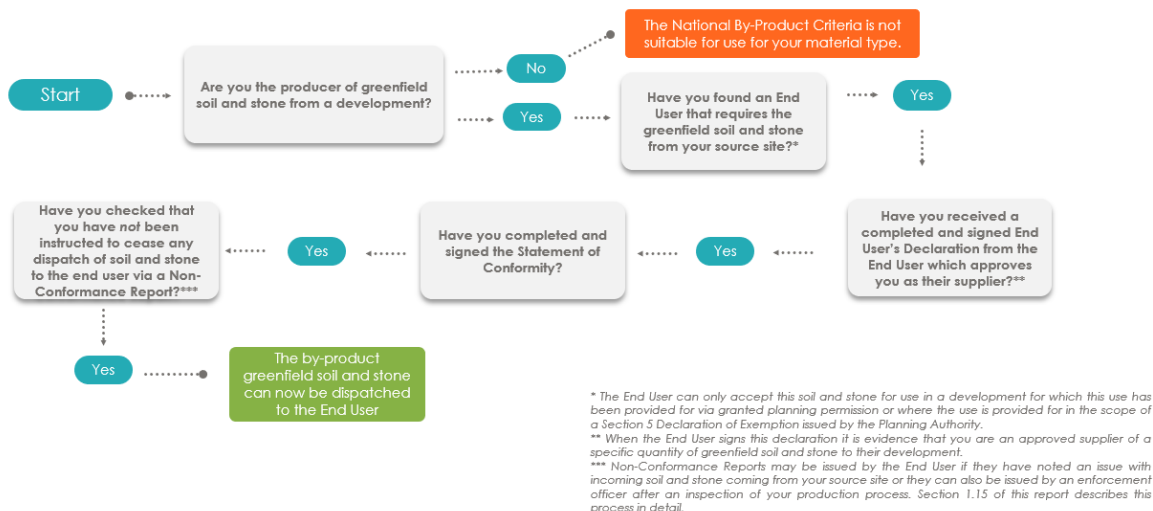
Date: _____

Attachment C – Non-Conformance Report

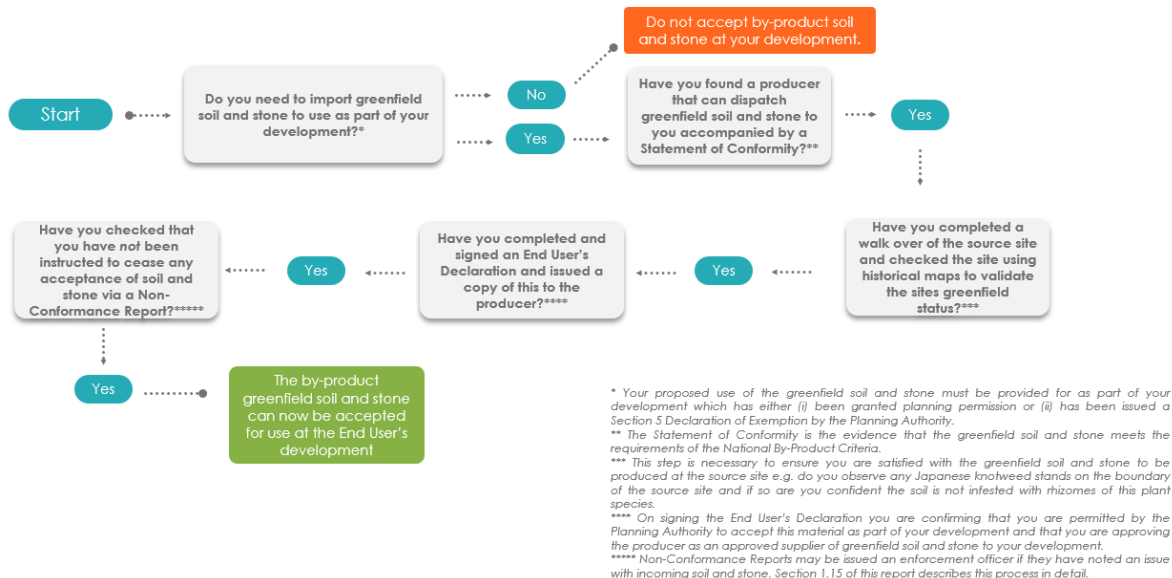
Non-Conformance Report (NCR)			
NCR Number:	<<Example: 001/2022>>		
Date NCR issued:			
Issued by:	<input type="checkbox"/> Producer	<input type="checkbox"/> End User	<input type="checkbox"/> Enforcement Officer
	Name of issuer:		
Description of the non-conformance:			
Initial communication issued to cease:			
Communication to cease issued from <<insert name of end user or enforcement officer>> to <<insert name of producer or end user>> on the <<insert date>>, reference attached communication record.			
Corrective action(s) taken:			
1.<<list actions taken to correct the non-conformance>>			
2.			
Preventative action(s) taken:			
1. <<list actions taken to prevent a reoccurrence of the non-conformance>>			
2.			
Final decision of the end user/ enforcement officer (tick as appropriate):			
<input type="checkbox"/> The producer <i>can resume</i> the dispatch of by-product greenfield soil and stone to the development in accordance with the signed End User's Declaration; or <input type="checkbox"/> The producer shall cease dispatch of by-product soil and stone from the source site to the end user's development; or <input type="checkbox"/> The end user shall cease the acceptance of by-product soil and stone at the development.			
Decision made by: <<insert name of end user or enforcement officer >>			
Decision made on: <<insert date the decision was made>>			
Final communication issued:			
The decision made above was communicated from <<insert name of end user or enforcement officer >> to <<insert name of producer or end user>> on the <<insert date>>, reference attached communication record.			
NCR signed-off as complete:	NCR complete: <<insert name of end user or enforcement officer >> Date: <<insert date of final sign-off>>		

Attachment D – Process Flow Charts

PRODUCER'S FLOW CHART



END USER'S FLOW CHART



ENFORCEMENT OFFICER'S FLOW CHART

