

Update 2020



The Styrian Guide to Construction & Demolition Waste 2020

**A practical guide in steps
for the following target groups:**

Building applicant, building owner

Authorities

Planner

Construction, demolition, earthworks company

Recycler and landfill operator



10/11/2020

CONDEREFF
Interreg Europe



www.baurestmassen.steiermark.at



**Das Land
Steiermark**



Abfall- und Ressourcenwirtschaft

Media owner and publisher:

Office of the Provincial Government of Styria
Division 14 - Water Management, Resources and Sustainability
Waste and Resources Management Unit
8010 Graz, Bürgergasse 5a
AUSTRIA
Phone: +43 (0)316 877-4323
E-mail: abfallwirtschaft@stmk.gv.at
Head of Unit:
Mag.rer.nat Dr.techn. Ingrid Winter

Editor:

Dipl.-Ing. Kerstin Pfandl, BSc und Matthias Waibel, BSc

Cooperation:

MA Michael Altendorfer
Günter Felsberger
Ursula Gungl
Dipl.-Ing. Kerstin Pfandl, BSc
Klaus Przesdzing
Dipl.-Ing. Hanno Prohaska
Mag.rer.nat Dr.techn. Ingrid Winter

The following persons are thanked for their valuable suggestions and supplements:

Dr. Gabriele Leitner; Office of the Provincial Government of Styria, A13 Environment and Regional Planning, Unit of Nature and General Environmental Protection
Erika Marak; BREM Bau GmbH
Dipl.-Ing. Markus Meissner; pulswerk GmbH
Mag. Agnes Schmidhofer; Office of the Provincial Government of Styria, A13 Environment and Regional Planning, Unit of Waste, Energy and Water Legislation
HR Mag. Dr. Heinz Schwarzbeck; Office of the Provincial Government of Styria, A13 Environment and Regional Planning, Unit of Nature and General Environmental Protection
Dipl.-Ing. Roland Starke; Federal Ministry for Climate Protection, Environment, Energy, Mobility, Innovation and Technology (BMK), Division V/6 - Waste Avoidance, Recycling and Evaluation

Translation into English: SCHNELLÜBERSETZER GmbH
www.schnelluebersetzer.at

This guide has been carefully researched and coordinated, but makes no claim to be complete. The information contained therein is not legally binding.

3rd updated and extended edition

© Province of Styria, Graz, 2020

The Styrian Guide to Construction & Demolition Waste 2020 is available at

www.baurestmassen.steiermark.at

available as download in PDF format

Content

Building applicant, Building owner	1
Step 1: Gather information.....	1
Step 2: Creating submission documents	3
Step 3: Making an application to the authorities.....	4
Step 4: Building negotiations - wait for decision with stipulations	4
Step 5: Measures before deconstruction.....	5
Step 6: Carrying out demolition / removal / excavation.....	7
Step 7: Determine, register and pay ALSAG contribution.....	9
Step 8: Keeping documentation	11
Step 9: Neophyte Management.....	11
Authority	13
Step 1: Information for the building applicant.....	13
Step 2: Examination of the submission documents according to § 32 Stmk. Building law.....	15
Step 3: Involvement of technical experts (depending on project)	16
Step 4: Examination of the local conditions (depending on the project)	17
Step 5: Holding building negotiations with local inspection (depending on the project)	17
Step 6: Creating decision (with stipulations)	17
Step 7: Neophyte Management.....	18
Planner	19
Step 1: Advising or informing the building applicant	19
Step 2: Preparation of submission documents on behalf of the building applicant for the application for a permit	21
Step 3: Deconstruction planning.....	22
Step 4: Contract award	24
Step 5: Local building inspectorate.....	24
Step 6: Neophyte Management.....	25

Construction, demolition, earthworks company	26
Step 1: Consider the principles of orderly deconstruction.....	26
Step 2: Investigation of pollutants and impurities according to ÖNORM B3151	26
Step 3: Define interim storage facilities and interim storage locations.....	28
Step 4: Removal of pollutants and impurities - reaching of the approval state.....	29
Step 5: Carrying out demolition work professionally	29
Step 6: Quality assured processing of building rubble	30
Step 7: Characterisation of excavated soil	36
Step 8: Carrying out permissible backfilling of the terrain and constructional fillings	39
Step 9: Determine, register and pay ALSAG contribution.....	40
Step 10: Recording waste / EDM.....	43
Step 11: Neophyte Management.....	43
<hr/>	
Recycler and landfill operator.....	45
Step 1: General information on quality assurance	45
Step 2: Acceptance of building rubble at a landfill	47
Step 3: Quality assured processing of building rubble	47
Step 4: Recording waste / EDM	52
Step 5: Landfill of non-recyclable waste	53
Step 6: Determine, register and pay ALSAG contribution.....	53
Step 7: Neophyte Management.....	57

Building applicant, Building owner

For a proper development of construction projects

Step 1: Gather information

For all questions regarding demolition, removal or excavation, the first step is to go to the building authorities. Contact partners are the municipalities, magistrates and district authorities. There you can obtain information on which documents are required in connection with a submission for construction or demolition permission. For special questions on the correct handling of demolition materials, the [Waste and Resources Management Unit](#) is also available in addition to the construction or recycling companies.

Building rubble is waste

As a general rule, all substances that occur during deconstruction (demolition, removal) or excavation are considered waste. This applies regardless of the size and type of construction project (demolition, rail structure demolition, excavation, renovation, etc.). As a waste owner, the building owner is subject to legal obligations. For example, according to the Waste Management Act ([AWG 2002](#)) they are obliged to demonstrably hand over all waste to an [authorised waste collector or waste handler](#).

In practice, these obligations are often delegated to professionals, such as the construction or demolition company, when the contract is awarded.

Especially for larger construction or demolition projects it is **necessary** to consult competent persons (e.g. planners or other professionals). These inform the developer about:

- submission documents
- [Recycling-oriented deconstruction and deconstruction concept](#)
- Commissioning of appropriate companies
- Potential for recycling (also reuse) of the building or parts thereof
- The possibilities of material recycling and disposal of the resulting waste
- Information on any ALSAG obligations
- Dealing with invasive neophytes

The initial consultation with a planner is free of charge and without obligation.

Control sequence of a planned deconstruction according to [ÖNORM B 3151](#)

Investigation of pollutants and impurities as a function of the demolition mass

If the demolition project generates more than 750 t of construction and demolition waste (excluding excavated material, rail structures and traffic areas), a preliminary investigation of pollutants and impurities according to ÖNORM B 3151 must be carried out [by a person familiar with demolition](#). For properties with a gross volume (width x length x height) of more than 3,500 m³ and more than 750 t of construction and demolition waste, a **comprehensive** investigation of pollutants and impurities must be carried out by an [authorised specialist or specialist institute](#).

According to the Recycling Building Materials Ordinance [§ 4 para. 3 RBV](#) the investigation of pollutants and impurities must also be combined with an investigation of reusable components (reuse). Thus, in addition to the pollutants and impurities to be removed, properties can also be identified that can be prepared for reuse.

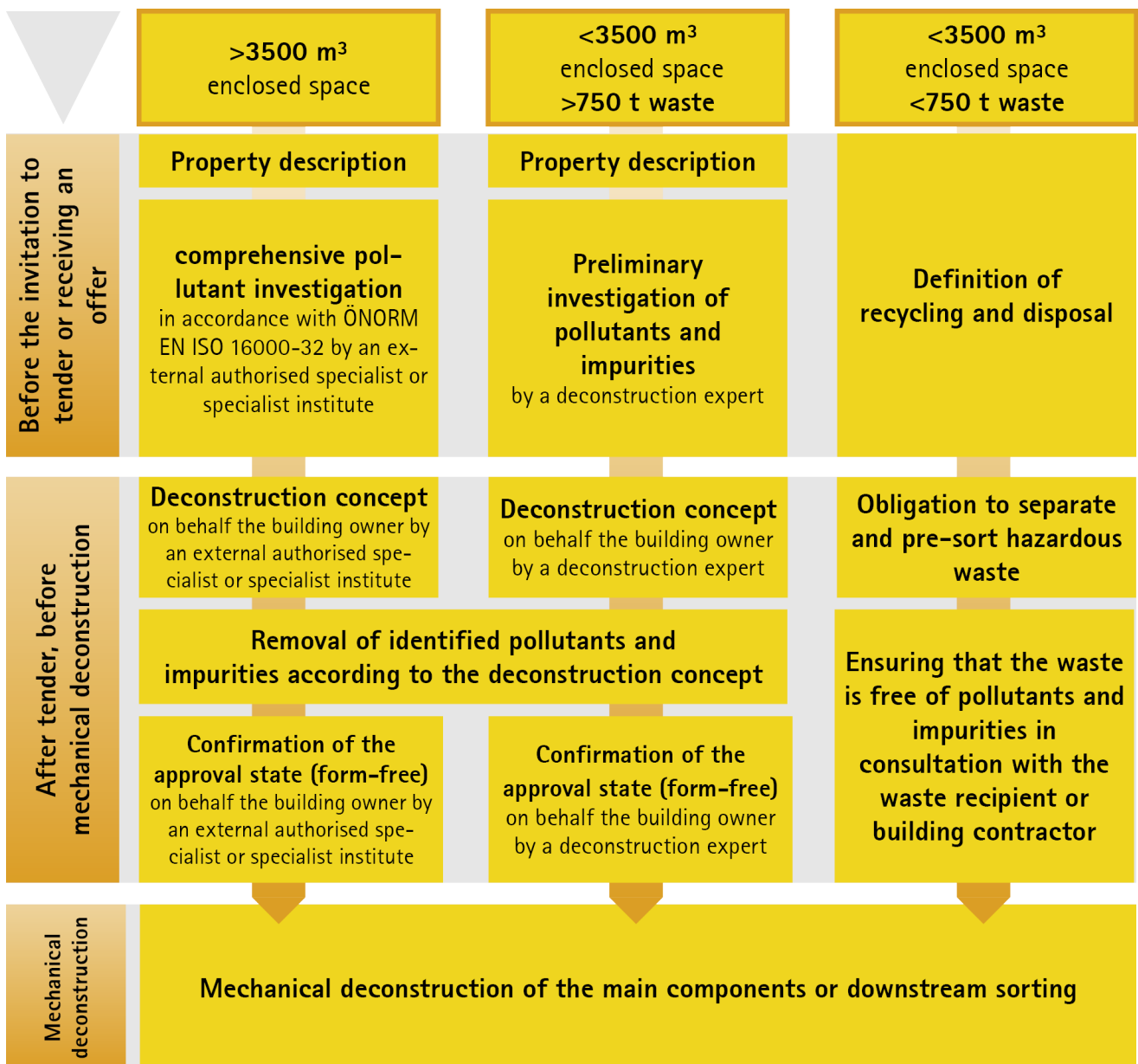
See: [Investigation of the reuse capability](#)

It is recommended that a detailed, elaborated specification sheet be prepared for the person who performs the investigation of pollutants and impurities. For larger deconstruction properties, comparative offers should

be obtained within the framework of a tender. Ultimately, this leads to a comprehensive analysis of the inventory, which forms an important basis for the cost-secure planning of the recycling-oriented deconstruction.

The investigation of pollutants and impurities is to be carried out by a person familiar with deconstruction (preliminary) or an authorised specialist or specialist institute (comprehensive). ÖNORM B 3151 serves as a basis for a preliminary investigation of pollutants and impurities, EN ISO 16000-32 for a comprehensive investigation.

Process overview



Example 1: A single-family house (with cellar) is completely deconstructed. The house measures 7 m (width) x 11 m (length) x 7.5 m (ridge height). This results in a gross volume of around 600 m³, which produces approx. 350 t of waste in the form of building rubble.

Requirement: No preliminary investigation of pollutants and impurities is necessary. However, the demolition should be coordinated with waste disposal companies and building contractors. In the case of on-site recycling, the Implementation of an investigation of pollutants and impurities according to ÖNORM B 3151 is recommended as quality assurance.

Example 2: A multiple unit house (without cellar) is completely deconstructed. The house measures 14 m (width) x 16 m (length) x 11 m (ridge height). This results in about 2,500 m³ gross volume. It is estimated that around 900 t of waste will be generated in the form of building rubble.

Requirement: A **preliminary** investigation of pollutants and impurities must be carried out by a [person familiar with deconstruction](#). The further demolition is carried out as an orderly deconstruction.

Step 2: Creating submission documents

Complete submission documents ensure a rapid and cost-effective procedure

Detailed information in the application documents can significantly speed up the permit procedure. With these documents, the planner can contact the responsible authorities (e.g. building authorities, experts, ALSAG authorities) even before the final submission in order to optimise the necessary documents for the procedure.

Content of the submission documents, based on the requirements according to [§ 32 Stmk. Building law](#) and the [Recycling Building Materials Ordinance](#):

1. Verification of ownership (copy of the land register)
 - Not older than six weeks
2. Declaration of consent of the landowner, if the applicant is not the landowner himself
3. List of owners of adjacent plots
4. Site plan showing the planned demolition / removal / excavation
 - Presentation of the planned access and departure routes, use existing planning documents (ask the authorities)
 - Representation of a possibly planned interim storage facility for building rubble on the construction site
 - The possibilities of using mobile recycling plants directly on the construction site should be investigated
5. Property description incl. gross floor space of all floors and gross room volume - [see form](#)
6. Description of the
 - investigation of pollutants and impurities (obligatory for more than 750 t) - [see form](#)
 - technical implementation of the demolition / deconstruction concept

(obligatory for more than 750 t) - [see form](#)

 - Safety measures
 - Noise and dust protection measures
7. Information on the sorting and whereabouts of the building rubble
 - Interim storage facility or definition of a suitable storage location
8. Information on final arrangements after demolition / removal / excavation
9. Photo documentation

What should an preliminary investigation of pollutants and impurities contain?

[ÖNORM B 3151](#) provides a form in Annex A with the following breakdown:

1. General information
2. Results of the investigation of pollutants
3. Results of the investigation of impurities
4. Site inspection details and other information

What should a deconstruction concept contain?

📄 [ÖNORM B 3151](#) provides a form with the following structure in Annex B:

1. General information
2. Estimation of the mass of the main components to be separated
3. Investigation of pollutants and impurities
4. Removal of pollutants and impurities
5. Mechanical deconstruction
6. Additional documents

Step 3: Making an application to the authorities

Complete application documents are a prerequisite for speedy procedures

The application for permit of a construction or demolition project must only be submitted to the building authorities when all necessary documents according to 📄 [Step 2](#) have been put together. The examination of the application is carried out by the building authority. If the application documents are incomplete, the authority can issue an improvement order with a time limit.

In certain cases, the Authority may call upon technical experts. The costs for this are borne by the building applicant, the building owner.

Step 4: Building negotiations - wait for decision with stipulations

Negotiation on site, in the course of a local inspection

The negotiation is usually conducted on site in the course of a local inspection. The outlines of buildings or parts of buildings to be erected or planned bulking measures (e.g. with recycled building materials), as well as planned interim storage facilities and temporary storage facilities, shall be marked out on the site by the building applicant or the planner in good time before the building negotiations.

If all documents are complete, the authority will issue a decision, if necessary with stipulations.

The planned deconstruction may only be carried out after the decision has become legally binding.

In the course of the site inspection, it is recommended to also pay attention to the occurrence of invasive neophytes. If invasive neophytes are present on the plot, the following should be documented:

- Invasive neophyte species
- Dissemination within the project perimeter

On the basis of this information, an action plan must be drawn up with an expert in the field of neophyte control. If neighbouring plots are affected, the neighbours must be informed and the measures must be coordinated (across properties) (see also [§ Measures against neophytes](#))

Step 5: Measures before deconstruction

Deconstruction must be ensured by capable companies

The deconstruction of buildings in the form of demolition and removal as well as the excavation are to be carried out by construction or disposal companies that present an appropriate qualification ([§ List of persons qualified for deconstruction](#)). This ensures for the building owners that the work is carried out in a professional and environmentally friendly manner and that no cost overruns occur. To ensure that, among other things, there are no subsequent claims under ALSAG, it must be ensured that recycled building materials are produced in accordance with the applicable **Recycling Building Materials Ordinance** ([§ 3rd section](#)).

Verifications and responsibilities

In accordance with the Waste Management Act ([§ AWG 2002](#)), the building owner as waste owner has the obligation to hand over the resulting waste only to an [§ authorised waste collector and waste handler](#) and to commission them explicitly with an environmentally friendly recycling or disposal ([§ 15 para. 5a and 5b](#)). Verification of permission for waste collection or waste treatment must therefore be requested from the commissioned companies. If you are a building owner, ask for the company's permit according to [§ Section 24a AWG 2002](#). If the contractor commissioned with demolition or excavation work is subject to the exception under [§ 24a para. 2 line 11](#) the latter shall demonstrably hand over the waste taken over in the course of this activity to an authorised waste collector or waste handler.

Tasks and requirements of these companies

See: [§ Construction, demolition and earthworks companies](#) See: [§ Recycler and landfill operator](#)

Tendering by planners for larger contracts

If, due to the size of the project, an invitation to tender is issued, it is advisable to have it carried out by an authorised planner.

see step 4 Contract award - planner:

[§ Invitation to tender and involvement of a planner for larger contracts](#)

Investigation of the reuse capability

In the course of the investigation of pollutants and impurities before demolition of a structure, those components which can be prepared for reuse must also be documented. In accordance with the waste hierarchy required by law, the preparation for reuse of components is the preferred treatment option. The reuse of components is an essential contribution to waste avoidance and thus to the further development towards resource-efficient recycling management.

The [§ Recycling Building Materials Ordinance \(RBV\)](#) accordingly stipulates that it must be ensured "that components which can be sent for preparation for reuse and which are in demand by third parties are dismantled and handed over in such a way that subsequent reuse is not made more difficult or impossible" ([§ 5 para. 1 RBV](#))

Possibilities for reuse of components should be explored by investigating local markets. Any interim storage facility capacities that may be necessary for potentially reusable components should be planned in good time (currently approved interim storage - 3-year period according to ALSAG for the storage of reusable

components). In the case of long-term planned construction projects, the deconstruction property itself can be used as a "place of storage". As long as the components remain installed in the building, there is no waste.

The planned reuse of components may require specific demolition techniques (e.g. manual dismantling) in a selective demolition. The preparation for reuse includes examination (also [CE certificate of conformity](#)) and the cleaning or repair of such components which, on completion of those preparatory activities, may be reused for the same purpose for which they were originally intended. Examples of potentially reusable components include radiators, furnishings, window frames, sanitary ceramics and floor coverings.

Preparation for reuse includes according to [§ 2 para. 5 line 6 AWG 2002](#) "...any recycling operation of examination, cleaning or repair in which products and components of products which have become waste are prepared in such a way that they can be reused without further pre-treatment."

According to [§ 5 para. 1 AWG 2002](#) the end of waste occurs only after completion of the recycling operation (examination, cleaning, and repair).

Construction or demolition measures on own initiative

CAUTION: Consider demolition dimensions - see [Control sequence of an orderly deconstruction!](#) All requirements with regard to investigation are, if necessary, also to be fulfilled if the deconstruction is carried out by the building owner on his own initiative. If **less** than 750 t of building rubble is produced during demolition, it can be recycled without analytical investigation on the same construction site, provided that an alternative quality assurance system (see [§ 10a RBV](#)) ensures that it is largely free of pollutants and impurities and does not contain any other contaminants.

For further information see: [ÖWAV leaflet 2018](#) "Simplified constructional recycling of small quantities of mineral building rubble on site"

To avoid possible ALSAG fees, it is important to ensure that

- the material fulfils the necessary characteristics for installation
- no more material than absolutely necessary is installed and
- it is free from contaminants

A quality assurance via chemical analysis can exclude any problems. It is recommended to carry out the deconstruction and the corresponding documentation according to [ÖNORM B 3151](#).

If the mineral building rubble resulting from demolition work involving **more than** 750 t of waste (excluding excavated soil) is sent for recycling on the company's own land, the relevant requirements under [Step 3 for recyclers and landfill operators](#) must be complied with the exception of obtaining a CE certificate.

All waste that cannot be recycled on site (e.g. sieve remains) must be handed over by the building owner to an authorised waste collector or waste handler and the latter must be commissioned with the environmentally friendly recycling or disposal.

In waste collection centres (WCC) approved in accordance with the [§ 54 AWG 2002](#), only municipal waste and other non-hazardous waste produced in private households may be accepted in quantities customary in households. Construction and demolition waste is not municipal waste. It is therefore not possible to hand over building rubble from demolition work at such WCCs; the scope of approval of the WCC should be clarified before the planned delivery. Reusable components are preferably reused locally and promptly for deconstruction due to the costs of transport and interim storage. Enquire about possible buyers from construction companies, institutions specialising in the reuse of components or Internet platforms.

Inadmissible backfilling with building rubble

Unauthorised backfilling with building rubble outside the construction site area is not permitted and can lead to high costs. Even if the contaminated site contribution ([see step 7](#)) has been paid, other regulations, such as the Waste Management Act, the Forestry Act or the Nature Conservation Act, are violated.

As a rule, the responsible district administrative authority then initiates administrative penal proceedings irrespective of the already paid contaminated site contribution. A treatment contract for this purpose can also be concluded under the Waste Management Act ([AWG 2002](#)), which in turn can lead to the legally compliant disposal and appropriate costs of illegally disposed waste.

Step 6: Carrying out demolition / removal / excavation

Separation by type is possible through orderly deconstruction

The **construction work** is to be carried out in accordance with the decision and with the stipulations imposed by the building authorities. Particular attention must be paid to components that can be prepared for reuse. **Pollutants** must be removed with special care. Only after their removal as well as the **impurities** is the **release state** achieved. Subsequently, mechanical deconstruction may take place.

Dealing with construction site waste

The building owner and the building contractors are responsible for the separation of the waste. With an orderly deconstruction process, a separation into the individual fractions, as pure as possible, should be achieved. For all fractions, the **separation obligation** provided for in the Recycling Building Materials Ordinance ([§ 6 RBV](#)) applies. This applies in particular to the separation of hazardous and non-hazardous waste and construction site waste from other waste. According to the Regulation, these are the following groups of substances:

- [Wood waste](#)
- [Metal waste](#)
- [Mineral waste](#) (concrete, asphalt)
- [Construction site waste](#)
- Other waste (e.g. biogenic waste, [Plastic waste](#))
- Hazardous waste (e.g. [Asbestos](#), [CFCs in insulating materials](#))

Effective waste separation helps the company to save costs. For this purpose, sufficient and suitable collection containers (skips / containers / sack racks etc.) for the waste produced must be provided on the construction site. The choice of collection containers must be made in consultation with the [authorised disposal companies](#). In order to achieve an optimal separation of the waste, the individual containers must be labelled and the construction site personnel must be instructed in the proper allocation of the waste. The companies and the building owner are responsible for the separation. Artificial mineral fibres, which can have asbestos-like characteristics, should also be highlighted. Further information on [artificial mineral fibres](#).

Building for the next generation

Top principle of the 5-step waste hierarchy according to [Waste Framework Directive](#) and according to AWG 2002 is the avoidance of waste. In the [OIB Directive](#) for the implementation of the EU regulation for construction products, Annex 1 point 7 states:

"Sustainable use of natural resources

The construction works must be designed, built and demolished in such a way as to ensure that natural resources are used in a sustainable manner and in particular:

- a) it must be possible to reuse or recycle the construction works, its building materials and parts after demolition;
- b) the construction works must be durable;
- c) the construction works must use environmentally sound raw and secondary materials

With this in mind, and for both economic and ecological reasons, care should be taken to build in a resource-conserving and efficient manner when constructing a new property.

Excavated soil

Excavated soil is not considered to be building rubble. This is extracted topsoil that is neither contaminated by non-soil mineral materials (max. 5 % by volume) nor by other waste. The following must be observed:

- Reinstallation on the same construction site for constructional purposes is not considered waste under waste law and can therefore take place.
- If the excavated soil material is used outside the construction site, the quantity threshold of 2000 t must be observed in accordance with the [Federal Waste Management Plan 2017](#) (Chapter 7.8) (small quantity regulation). The obligations for recording and quality assurance depend on this.

Further information on excavated soil (see [Step 7 - Construction, demolition and earthworks companies](#))

Measures against invasive neophytes

The [EU regulation \(EU\) No. 1143 / 2014](#) "On the prevention and management of the introduction and spread of invasive alien species" provides the legal basis for combating invasive alien species.

According to the currently valid Union list, the occurrence of 10 invasive species in Austria has been confirmed.

In Styria, seven (five terrestrial and two aquatic) invasive neophytes are established and to be combated: Glandular balsam, common silk plant, tree of heaven, Japanese hops, giant hogweed (terrestrial), as well as the salvinia and the various-leaved water milfoil (aquatic). For all other invasive species that also cause problems (e.g. knotgrass species), combating is voluntary.

If there is an occurrence of invasive neophytes on the construction site, it is recommended to have the area inspected by a competent person. The latter determines suitable mitigation measures in accordance with management measures and action plan and draws up an implementation plan. Basic information, the description of the individual neophytes as well as the key points of proper combating can be found, for example, at neobiota.styria.at/.

Further information:

- [Division 13, Nature and General Environmental Protection Unit](#)
Contact partner: Dr. Andrea Krapf
- [Division 14, Waste Management and Resource Management Unit](#)
Contact partner: Dr. Ingrid Winter
- [Alien species Austria](#)

In principle, a distinction must be made between terrestrial and aquatic species, and combating must be tailored to the respective species. The selected measures depend among other things also on whether it concerns single occurrences or pure occurrences.

Depending on the size of the occurrence, the following main possibilities exist for combating or preventing further spread:

- Before seeds are formed, mow, pull out, dig out, mulch and mill plant material. The preferred treatment method for the mowed material is thermal treatment. Material that cannot propagate can also be treated biologically (composting, fermentation with sufficient hygienisation). In addition to the technical suitability of the facility (e.g. suitable aggregates for pre-shredding and injection), an appropriate permit for the treatment of this waste is a prerequisite.
- Use of herbicides in compliance with legal stipulations (e.g. water protection regulations). For this purpose, a person with expertise in chemical neophyte combat must be consulted.
- Individual, isolated occurrences on the project perimeter can be uprooted or excavated, the soil must be covered and immediate reseeding must take place. Polluted soil material should not be mixed with unpolluted material (either reuse directly in the neophyte zone or, in case of excess material, declare it correctly and take it to a suitable landfill).
- If the soil cannot be covered or excavated, it must be clarified whether or not the construction site touches the occurrence. The spread within the project perimeter must be prevented at all costs, e.g. by mowing, tearing out, digging out, milling before the seeds ripen.
- Accompanying measures (cleaning of machinery, proper packaging for transport to a treatment plant, etc.) must be taken to prevent the spread of seeds or growing plant parts.

If the construction site does not directly affect an occurrence of invasive neophytes, there is no obligatory need for action within the framework of the construction project. However, it is recommended that neighbouring occurrences are eliminated or combated where possible to prevent further spread of the seeds.

Step 7: Determine, register and pay ALSAG contribution

The building owner can be the contribution debtor

The building owner may be confronted with due ALSAG fees if they do not transfer the waste produced on the production site to an ALSAG contractor [authorised waste collector or waste handler](#) or if they recycle waste on their own initiative, e.g. on the production site, and does not meet the appropriate requirements [Step 3 for recycler and landfill operator](#) or is unable to prove that it is free of pollutants and impurities and other harmful substances.

Responsibility for the ALSAG contribution lies with the customs authority

The [Contaminated site contribution according to the Contaminated Sites Remediation Act](#) is an purpose-designated fee collected for the disposal, backfilling or shipment of certain types of waste. For the examination and collection of the contaminated site contribution the [Customs authority](#) is responsible.

Contaminated site contribution obligation

- Landfill of waste
- Backfilling of uneven terrain or making adjustments to the terrain with building debris, and (soil) excavated material or building rubble
- Shipments of waste for the purpose of landfilling or backfilling (e.g. with building debris or building rubble outside the Federal territory)
- Storage of waste for more than one year for disposal or more than three years for recycling

Details of the obligation to pay contaminated site contribution: [§ 3 Contaminated Sites Remediation Act](#)

Contaminated site contributions do not apply if building rubble and (soil) excavated material is sent for permissible recycling or permissible reuse - see [Types of waste!](#)

Contribution debtors are

- the landfill operator or

- in case of shipment outside the Federal territory, the person who is obliged to notify, or
- the initiator (building owner) of an activity that is subject to contributions (building owner or building contractor). If this cannot be determined, the contribution debtor is the person who tolerates the activity (e.g. landowner, farmer)

Details of contribution debtors: [§ 4 Contaminated Sites Remediation Act](#)

The contribution debtor must keep records, separated according to the basis of the contributions (**seven years obligation to keep records**).

Contaminated site contributions per tonne or part thereof

(Status: 10/2020, [§ 6 ALSAG](#))

mineral building rubble (see. Annex 2 DVO 2008)	€ 9.20
Excavated material (if not free of charge)	€ 9.20
other mineral wastes (see Annex 1, Tables 5 and 6 of DVO 2008)	€ 9.20
other waste	€ 87.00

If waste is landfilled, the (sub)class of landfill decides the amount of the contribution:

Excavated soil landfill	€ 9.20
Landfill of inert waste	€ 9.20
Building rubble landfill	€ 9.20
Other waste - landfill for residual materials	€ 20.60
Bulk waste landfill or hazardous waste landfill	€ 29.80

When to pay

The contaminated site contribution is a self-assessment levy. The self-calculated contribution must in any case be declared and paid to the customs office of the place of business after the end of the calendar quarter in which the activity took place (by the 15th of the second following month at the latest).

Normally for landfill - contaminated site contribution included

As a matter of principle, building rubble is to be recycled. If this is not possible, the waste is usually disposed of by a waste disposal company on behalf of the construction company or the building owner or the waste is disposed of in a landfill. In this case, the landfill operator will generally include the contaminated site contribution in the landfill price (or the disposer in the disposal price). In many cases, the contaminated site contribution is shown separately. Due to the possibly changing contribution rates and basis, it is recommended to pay attention to the reported contaminated site contribution.

The information transfer is always in electronic form

- **Information** for all commercial operators, companies, tax consultants and private individuals can be found at the Contaminated Sites Contribution Information System Customs under the topic [Contaminated sites contribution](#).
- **Online registration for contributions** under www.bmf.gv.at > [Financial Online](#)
- **Written application for contributions** with the [Form "Alb 4"](#) "Contaminated Site Contribution Notification". This form is currently available from the "[Form database](#)" >> Selection > Alb 4 (enter).

Step 8: Keeping documentation

Documentation to provide verification to the authorities

After all work carried out by authorised companies, the building owner must have documentation or verification of whereabouts of the waste.

If the resulting waste is handed over to [authorised waste collectors and waste handlers](#), **invoice documents, delivery notes and the like** are sufficient as verification of environmentally friendly recycling or disposal, from which the exact types and quantities of waste can be seen. The builder owner must **keep this verification for at least seven years** and be able to present it for subsequent official inspections.

If parts of the waste produced are recycled on the company's own initiative - e.g. concrete granulate for the fortification of a car park - appropriate records must be kept for this processed waste with regard to type, quantity, origin and whereabouts, and detailed documents must also be obtained with regard to its quality (see [Step 1 for recycler and landfill operator](#)). These documents must also be kept for seven years and submitted to the authority if necessary.

In the case of preparation for reuse (examination, preparation, repair), the waste characteristic ends only at the end of the necessary preparation steps and is subject to the documentation obligation until then. Even after the end of the waste characteristic, the transfer of reusable objects should be documented (object, the transferor, the transferee, quantity or mass).

Recording obligation according to ALSAG: The contribution debtor must keep records, separated according to the basis of the contribution (seven years recording obligation).

Recording obligation according to the Recycling Building Materials Ordinance (RBV): The building owner is responsible for the documentation of the investigation of pollutants and impurities as well as the deconstruction and must keep this documentation for seven years after completion in order to be able to present it for subsequent inspections by the authorities.

Infestation with invasive neophytes and the measures taken to combat them should also be informally documented and stored for the purpose of coordinating any future steps that may be necessary.

Step 9: Neophyte Management

Construction completion with invasive neophyte occurrence

If invasive neophytes are present on the construction site, the following measures are recommended after completion of construction (source: [Ries 2015](#) [Leaflet - Baselland](#)):

- Define maintenance and care concept with responsibilities
- Carry out periodic checks for at least 5 years
- Targeted combating of invasive neophytes that reappear in summer
- Even if no invasive neophytes were present on the construction site, a follow-up inspection must be carried out at an early stage in order to detect and combat any plants that may have been introduced

Further information:

- [Division 13, Nature and General Environmental Protection Unit](#)
Contact partner: Dr. Andrea Krapf
- [Division 14, Waste Management and Resource Management Unit](#)
Contact partner: Dr. Ingrid Winter

-  [Alien species Province of Styria](#)
-  [Alien species Austria](#)

Authority

Within the framework of the building permit procedure

Step 1: Information for the building applicant

Information to the building applicant in the course of the building consultation is particularly important

The building applicant should know after the discussion (telephone/in person),

1. that building rubble is basically waste and that the building owner is the waste owner
2. that there are strict requirements for the recycling and disposal of building rubble
3. that according to the waste hierarchy ([§ 1 para. 2 AWG 2002](#)) a reuse of building materials is the preferred option (exceptions [§ 1 para. 2a AWG 2002](#))
4. that proper separation of waste generated must be ensured on site
5. which submission documents are necessary for the construction process and where support is available (planner)
6. how the procedure for demolition of the building is handled (recycling-oriented deconstruction)
7. which authorities are to be contacted, if necessary, after further / other approvals have to be obtained in certain cases, e.g. from the district authorities:
Commercial, water, nature conservation and forestry law

The aim should be to approve deconstruction in the course of a concentrated procedure in accordance with the "One Stop Shop Principle" at the same time as the building permit.

8. that in connection with building rubble, fees may be payable under the Contaminated Sites Remediation Act (ALSAG)
9. that attention should be paid to a possible occurrence of invasive neophytes

The principle is that orderly deconstruction in accordance with [§ Recycling Building Materials Ordinance \(RBV\)](#) is the standard demolition method of buildings.

Control sequence of a planned deconstruction according to [§ ÖNORM B 3151](#)
https://www.ris.bka.gv.at/Dokumente/Bundesnormen/NOR40187245/II_290_2016_OeNORM_B_3151.pdf

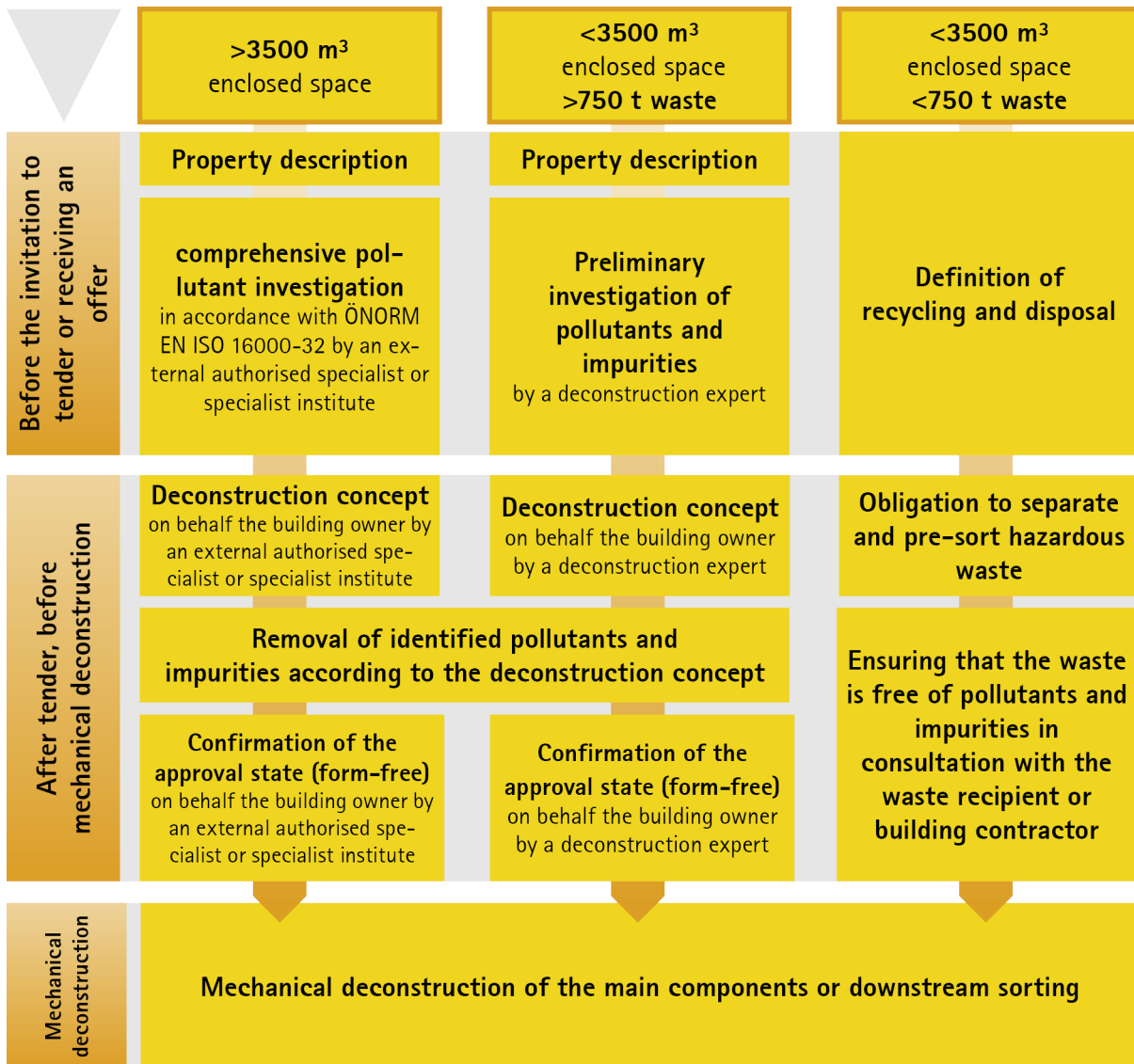
Investigation of pollutants and impurities as a function of the demolition mass

If the demolition project generates more than 750 t of construction and demolition waste (excluding excavated material, rail structures and traffic areas), an **preliminary** investigation of pollutants and impurities according to ÖNORM B 3151 must be carried out [by a person familiar with demolition](#). For properties with a gross volume (width x length x height) of more than 3,500 m³ and more than 750 t of construction and demolition waste, a **comprehensive** Investigation of pollutants and impurities must be carried out by an [authorised specialist or specialist institute](#).

Point out to the building owner that a detailed specification for the investigation of pollutants and impurities increases their planning reliability. For larger deconstruction properties, comparative offers should be obtained within the framework of a tender. Ultimately, this leads to a comprehensive analysis of the existing building inventory, which forms an important basis for the building owner for the cost-secure planning of the recycling-oriented deconstruction.

Those components which can be prepared for reuse shall also be documented.

Process sequence



Example 1: A single-family house (with cellar) is completely deconstructed. The house measures 7 m (width) x 11 m (length) x 7.5 m (ridge height). This results in a gross volume of around 600 m³, which produces approx. 350 t of waste in the form of building rubble.

Requirement: No preliminary investigation of pollutants and impurities is necessary. However, the demolition should be coordinated with waste disposal companies and building contractors. In the case of on-site recycling, the Implementation of an investigation of pollutants and impurities according to ÖNORM B 3151 is recommended as quality assurance.

Example 2: A multiple unit house (without cellar) is completely deconstructed. The house measures 14 m (width) x 16 m (length) x 11 m (ridge height). This results in about 2,500 m³ gross volume. It is estimated that around 900 t of waste will be generated in the form of building rubble.

Requirement: A preliminary investigation of pollutants and impurities must be carried out by a [person familiar with deconstruction](#). The further demolition is carried out as an orderly deconstruction.

Step 2: Examination of the submission documents according to § 32 Stmk. Building law

Complete submission documents ensure a rapid and cost-effective procedure

Detailed information in the application documents can significantly speed up the permit procedure. With these documents, the planner can contact the responsible authorities (e.g. building authorities, experts, ALSAG authorities) even before the final submission in order to optimise the necessary documents for the procedure.

Content of the submission documents, based on the requirements according to [§ 32 Stmk. Building law](#) and the [Recycling Building Materials Ordinance \(RBV\)](#):

1. Verification of ownership (copy of the land register)
 - Not older than six weeks
2. Declaration of consent of the landowner, if the applicant is not the landowner himself
3. List of owners of adjacent plots
4. Site plan showing the planned demolition / removal / excavation
 - Presentation of the planned access and departure routes, use existing planning documents (ask the authorities)
 - Representation of a possibly planned interim storage facility for building rubble on the construction site
 - The possibilities of using mobile recycling plants directly on the construction site should be investigated
5. Property description incl. gross floor space of all floors and gross room volume - [see form](#)
6. Description of the
 - investigation of pollutants and impurities (obligatory for more than 750 t) - [see form](#)
 - technical implementation of the demolition / deconstruction concept

(obligatory for more than 750 t) - [see form](#)

 - Safety measures
 - Noise and dust protection measures
7. Information on the sorting and whereabouts of the building rubble
 - Interim storage facility or definition of a suitable storage location
8. Information on final arrangements after demolition / removal / excavation
9. Photo documentation

What should an preliminary investigation of pollutants and impurities contain?

[ÖNORM B 3151](#) provides a form in Annex A with the following breakdown:

1. General information
2. Results of the investigation of pollutants
3. Results of the investigation of impurities
4. Site inspection details and other information

What should a deconstruction concept contain?

ÖNORM B 3151 provides a form with the following structure in Annex B:

1. General information
2. Estimation of the mass of the main components to be separated
3. Investigation of pollutants and impurities
4. Removal of pollutants and impurities
5. Mechanical deconstruction
6. Additional documents

Step 3: Involvement of technical experts (depending on project) Experts, an important aspect of the proceedings

Technical experts may be consulted by the Authority. The costs of this shall be borne by the building applicant.

As a rule, the authorities are satisfied with simple construction or demolition procedures with the involvement of official constructional experts. If no official expert is available, the list of non-official building experts is taken from the list of non-official building experts according to [§ 28 Stmk. BauG](#). In the case of more complex procedures, however, it may also be necessary to involve experts from other specialist areas in the procedure. The charges shall be borne by the legal entity on whose behalf the authority has acted in the matter, unless the parties to the proceedings are liable for them ([§ 76 para. 5 AVG](#)).

In the case of construction or demolition projects in which, for example, due to certain terrain conditions, special natural hazards such as landslides or flood hazards have to be taken into account, it may be necessary to have experts from

- ground engineering
- geology

or to consult experts in torrent and avalanche control. As practice shows, the involvement of experts from the specialist areas

- fire protection
- noise protection
- immission protection (e.g. dust) and / or
- medicine

are necessary over and over again. With complex demolitions with a large number of (hazardous) types of waste, it is recommended to consult a waste management expert. The requirement for the relationship of experts should be communicated to the building applicant or planner.

In the case of an occurrence of invasive neophytes, an expert for nature conservation should be involved to clarify the species, the distribution, the treatment measures as well as necessary future combating measures.

Step 4: Examination of the local conditions (depending on the project)

Preliminary inspections are recommended for complex projects

In the case of complex construction or demolition projects, especially in densely built-up areas, it is recommended that the authorities examine the actual conditions on site after the appropriate submission documents have been submitted.

Since experience shows that there is only a limited time window available in the building negotiations, a comprehensive site inspection, e.g. of a demolition object, is then often not possible. Should it become apparent during the building negotiations that certain information concerning the project do not correspond to the real conditions on site, this can lead to enormous delays in the procedure.

Preliminary site inspections of the construction site by the authorities, possibly in the presence of the planner, lead to more efficiency in the implementation of the procedures. In any case, the construction site inspection should be recorded and documented by means of photo documentation.

Step 5: Holding building negotiations with local inspection (depending on the project)

Local inspection, an important part of the building negotiations

Outlines of buildings or parts of buildings to be erected or planned bulking measures, e.g. with recycled building materials, as well as planned interim storage facility or temporary storage areas on site, shall be marked out on the site.

If demolition materials are to be prepared directly on site and used on the construction site, all measures associated with this and, insofar as there is a legal basis for this in the building law, are to be recorded in detail in the negotiation document or the building applicant is to be informed of any other responsible authorities. Particular attention shall be paid to the suitability as interim storage facility and for temporary storage with regard to soil, water, etc., and only locations suitable for this purpose shall be licensed.

The topic of "waste management on the construction site" should be explicitly given time in the course of the building negotiations in order to sensitise both the building applicant and all other parties participating in the negotiations to this topic. A local recycling of mineral materials (e.g. from demolition or excavation) for the construction project requires a more detailed investigation and planning, but is economically and ecologically beneficial for the entire construction project. The earlier in the planning stage the issue of reuse of components is addressed, the greater the chances that existing potential can actually be exploited. The deconstruction concept is a suitable document to summarise these plans.

With the occurrence of invasive neophytes, the measures to be taken on site shall be determined.

Step 6: Creating decision (with stipulations)

Stipulations are to ensure legally compliant recycling / disposal

Practice has shown that waste management issues (e.g. the recycling and disposal of building rubble) are often not sufficiently addressed in the demolition decision.

The above-mentioned sample stipulations and instructions are intended to provide assistance to building authorities.

 [Information for building authorities: Demolition: Sample stipulations and instructions](#)

The more detailed the respective recycling and disposal methods of the construction waste produced are addressed, the less scope there is for its improper disposal.

With the occurrence of invasive neophytes, the decision requirements should be supplemented by specifications regarding combating the occurrence and after-care of the areas.

Step 7: Neophyte Management

If there is an occurrence of invasive neophytes on the construction site, it is recommended to have the area inspected by a competent person. The latter determines suitable mitigation measures in accordance with management measures and action plan and draws up an implementation plan. Basic information, the description of the individual neophytes as well as the key points of proper combating can be found, for example, at neobiota.styria.at/.

Further information:

- [Division 13, Nature and General Environmental Protection Unit](#)
Contact partner: Dr. Andrea Krapf
- [Division 14, Waste Management and Resource Management Unit](#)
Contact partner: Dr. Ingrid Winter
- [Alien species Austria](#)

Planner

For the expert support of the building applicant during the construction process

Step 1: **Advising or informing the building applicant**

Complex projects require the support of a planner

If a construction project involves a necessary demolition, excavation or removal, the following steps must be taken. The principle is that orderly deconstruction is the standard method of demolition of buildings.

After the building applicant has obtained the initial information from the municipalities or the magistrate, a planner should be consulted. For complex projects, it is advisable to consult with a planner prior to meetings with the authorities.



The following topics are discussed in an initial meeting


- Obligations of the building owner as waste owner
- Content of the submission documents
- Principles of deconstruction (dimension and valid procedure)
- Deconstruction procedure
- Possibilities of reuse, recycling and disposal
- ALSAG obligations

This initial consultation is basically free of charge!

Control sequence of a planned deconstruction according to ÖNORM B 3151

Investigation of pollutants and impurities as a function of the demolition mass

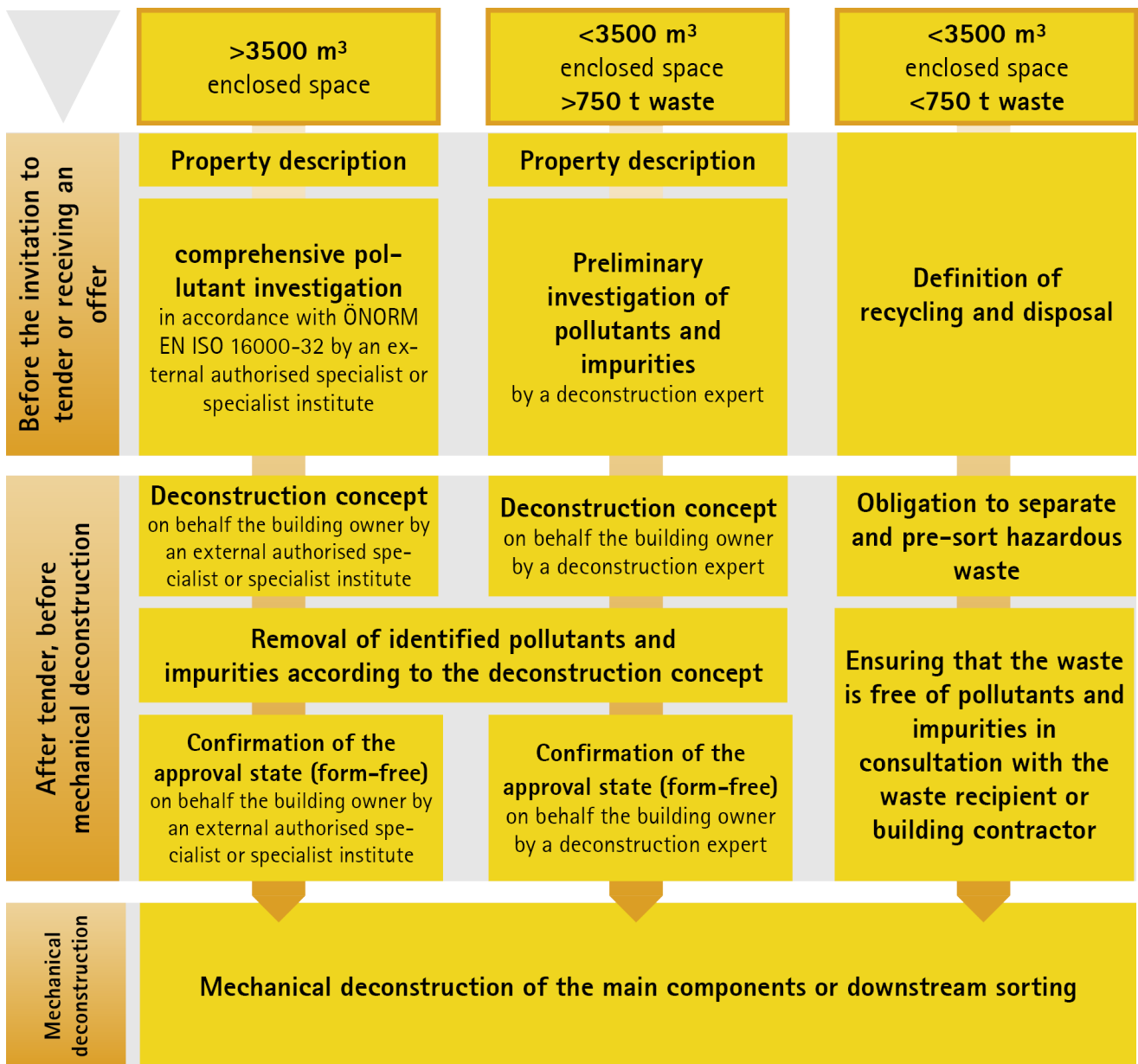
If the demolition project generates more than 750 t of construction and demolition waste (excluding excavated material, rail structures and traffic areas), a **preliminary** investigation of pollutants and impurities according to ÖNORM B 3151 must be carried out  by a person familiar with demolition. For properties with a gross volume (width x length x height) of more than 3,500 m³ and more than 750 t of construction and demolition waste, a **comprehensive** investigation of pollutants and impurities must be carried out by an  authorised specialist or specialist institute.

According to the Recycling Building Materials Ordinance  § 4 para. 3 RBV the investigation of pollutants and impurities must also be combined with an investigation of reusable components (reuse). Thus, in addition to the pollutants and impurities to be removed, properties can also be identified that can be prepared for reuse.

It is recommended that a detailed, elaborated specification sheet be prepared for the person who performs the investigation of pollutants and impurities. For larger deconstruction properties, comparative offers should be obtained within the framework of a tender. Ultimately, this leads to a comprehensive analysis of the inventory, which forms an important basis for the cost-secure planning of the recycling-oriented deconstruction.

The investigation of pollutants and impurities is to be carried out by a person familiar with deconstruction (preliminary) or an authorised specialist or specialist institute (comprehensive). ÖNORM B 3151 serves as a basis for a preliminary investigation of pollutants and impurities, EN ISO 16000-32 for a comprehensive investigation.

Process overview



Example 1: A single-family house (with cellar) is completely deconstructed. The house measures 7 m (width) x 11 m (length) x 7.5 m (ridge height). This results in a gross volume of around 600 m³, which produces approx. 350 t of waste in the form of building rubble.

Requirement: No preliminary investigation of pollutants and impurities is necessary. However, the demolition should be coordinated with waste disposal companies and building contractors. In the case of on-site recycling, the Implementation of an investigation of pollutants and impurities according to ÖNORM B 3151 is recommended as quality assurance.

Example 2: A multiple unit house (without cellar) is completely deconstructed. The house measures 14 m (width) x 16 m (length) x 11 m (ridge height). This results in about 2,500 m³ gross volume. It is estimated that around 900 t of waste will be generated in the form of building rubble.

Requirement: A preliminary investigation of pollutants and impurities must be carried out by a [person familiar with deconstruction](#). The further demolition is carried out as an orderly deconstruction.

Step 2: Preparation of submission documents on behalf of the building applicant for the application for a permit

Complete submission documents ensure a rapid and cost-effective procedure

Detailed information in the application documents can significantly speed up the permit procedure. With these documents, the planner can contact the responsible authorities (e.g. building authorities, experts, ALSAG authorities) even before the final submission in order to optimise the necessary documents for the procedure.

Content of the submission documents, based on the requirements according to [§ 32 Stmk. Building law](#) and the [Recycling Building Materials Ordinance \(RBV\)](#):

1. Verification of ownership (copy of the land register)
 - Not older than six weeks
2. Declaration of consent of the landowner, if the applicant is not the landowner himself
3. List of owners of adjacent plots
4. Site plan showing the planned demolition / removal / excavation
 - Presentation of the planned access and departure routes, use existing planning documents (ask the authorities)
 - Representation of a possibly planned interim storage facility for building rubble on the construction site
 - The possibilities of using mobile recycling plants directly on the construction site should be investigated
5. Property description incl. gross floor space of all floors and gross room volume - [see form](#)
6. Description of the
 - investigation of pollutants and impurities (obligatory for more than 750 t) - [see form](#)
 - technical implementation of the demolition / deconstruction concept

(obligatory for more than 750 t) - [see form](#)

 - Safety measures
 - Noise and dust protection measures
7. Information on the sorting and whereabouts of the building rubble
 - Interim storage facility or definition of a suitable storage location
8. Information on final arrangements after demolition / removal / excavation
9. Photo documentation

What should an preliminary investigation of pollutants and impurities contain?

[ÖNORM B 3151](#) provides a form in Annex A with the following breakdown:

1. General information
2. Results of the investigation of pollutants
3. Results of the investigation of impurities
4. Site inspection details and other information

What should a deconstruction concept contain?

ÖNORM B 3151 provides a form with the following structure in Annex B:

1. General information
2. Estimation of the mass of the main components to be separated
3. Investigation of pollutants and impurities
4. Removal of pollutants and impurities
5. Mechanical deconstruction
6. Additional documents

Step 3: Deconstruction planning

Planning ensures a legally compliant recycling / disposal of building rubble

This procedure complies with the requirements of the [Recycling Building Materials Ordinance \(RBV\)](#) and uses the [ÖNORM B 3151](#) as a basis. The following steps are provided for the planning and documentation of a deconstruction:

I) Property description

The property description is to be prepared in accordance with the company standard ÖNORM B 2251. This description serves as the basis for the deconstruction concept and must be enclosed with the submission.

II) Investigation of pollutants and impurities

Depending on the dimensions, the following must be carried out before demolition of one or more construction works within the framework of a construction project (with the exception of rail structures and traffic areas):

- **Gross room volume less than 3,500 m³ but more than 750 t of demolition waste (excluding excavated soil):**
 - [for a preliminary investigation of pollutants and impurities](#) according to [ÖNORM B 3151](#) by a person familiar with [deconstruction](#)
- **Gross room volume of more than 3,500 m³ and more than 750 t of demolition waste (excluding excavated soil):**
 - Instead of a preliminary approach, an investigation of pollutants and impurities in accordance with ÖNORM EN ISO 16000-32 "Indoor air pollution, Part 32: Investigation of indoor air pollution in buildings", (issued on 1 October 2014), by an external [authorised specialist or specialist institute](#) who has the constructional technical knowledge. ([§ 4 para. 2 RBV](#))

In the course of the investigation of pollutants and impurities, the Recycling Building Materials Ordinance ([§ 4 para. 3 RBV](#)) also stipulates which components can be supplied for preparation for reuse.

III) Deconstruction concept

The [Deconstruction concept](#) describes the nature, extent and organisation of the deconstruction. It regulates the tasks, measures and responsibilities of the parties involved and the organisation (including documentation) of the deconstruction in the various phases. The deconstruction concept must be documented (in paper form or electronically) in accordance with the form on behalf of by the building applicant prior to deconstruction. For larger deconstruction projects, the form is to be supplemented accordingly if necessary. Relevant information regarding the local recycling of mineral demolition materials and reusable components must also be documented.

IV) Additional planning steps

Possible additional planning steps could be:

- **Waste** **information**
Providing waste information to an authorised specialist or specialist institute enables a testing laboratory to tender (including sampling plan)
 - [EDM portal](#): [Form generator waste information according to DVO 2008](#)
 - You will find paper forms [here](#)
- **Advice for the building applicant, building owner**
 - in the search for customers for reusable components
 - in the selection of a laboratory (authorised specialist or specialist institute)
 - for the preparation of specifications for the investigation of pollutants and impurities and for deconstruction
 - when choosing a construction company
- **Coordination meeting** (building applicant, building owner, planner, laboratory)

Step 3.1: Possibilities of reuse

Think about reuse when replanning

If you, as the demolition planner, are also responsible for planning the new building, consider the demolition building also as a source of reuse components and as inspiration for the planned new building. In this way, costs can be saved and the reference to the previous inventory can be maintained to a certain extent.

The building owner should also be informed and sensitized about these possibilities.

As planners, they should also communicate across construction sites to find potential customers for reuse components.

With any new planning, attention should also be paid to a high reuse potential of the new building after its actual useful life. Thus, it can already be ensured today that reuse will be easier to manage and strengthened in the future.

There are companies that specialise in reuse (planning and operational work). By establishing contact at an early stage, it can be quickly clarified to what extent they can provide support and be involved in the new project.

Step 4: Contract award

Planner supports the building owner during the contract award process

The deconstruction is to be listed as a separate item in the order and also awarded as such. An assistance for the request for proposal and tender is offered by the guide for the application of the standardised [Specification of structural engineering \(LBH\) - Demolition work of the Federal Ministry of Digitalisation and Business Location \(BMDW\)](#).

With the offer or tender, verification of the authority of the deconstruction company must also be provided. For the investigation of pollutants and impurities, it may be necessary (depending on the dimension of the project) to commission an [authorised a specialist or specialist institute](#).

The invitation to tender should stipulate the obligation to separate and recycle or dispose of the waste properly and also define the verification (e.g. delivery notes, landfill invoices, etc.) of the disposal or recycling of the waste produced. This verification must be kept by the building owner for the ALSAG authorities. The collection of the appropriate documents can be undertaken by the planner.

According to [Recycling Building Materials Ordinance \(RBV\)](#) the building owner and the building contractors are responsible for the separation of waste generated during construction and demolition activities.

Possible projects for preparation for reuse should be mentioned in the tender. If the deconstruction company also carries out the deconstruction of reusable components, separate items (in addition to the LBH - demolition work) must be put out to tender.

Step 5: Local building inspectorate

Local building inspectorate, an important element in the construction process

Right at the beginning of the deconstruction, a local building inspectorate should be appointed or commissioned in order to ensure proper deconstruction, guarantee cost transparency and minimise risks.

This measure enables the local building inspectorate to record the quantities of waste as well as the recycling and disposal methods in a timely manner and to check the costs incurred for transport etc. Contribution debts under the ALSAG or additional cost claims can thus be avoided.

In the course of the deconstruction work, the building owner is obliged to keep records:

As a matter of principle, the companies commissioned are obliged to keep records of all waste movements around the construction site. The building owner is the initial producer of waste. Basically only the [Recording obligation according to the Waste Documentation Ordinance](#) (ANV 2012) applies to them.

During the planning activities, advice may be given on how to record these waste movements (flows). The following information leaflets of the Chamber of Commerce shows possible examples of such transfers.

- Leaflet from the WKO: [Waste Balance Ordinance for the Construction Industry](#)

According to the Waste Management Act (AWG 2002), the building owner is the waste producer. For example, the transfer of excavated soil to another construction site must be recorded. Further information (see WKO leaflet).

The combating or disposal of an occurrence of invasive neophytes shall be carried out and documented professionally.

Documentation obligation

After all work carried out by authorised companies, the building owner must have documentation or verification of whereabouts of the waste.

If the resulting waste is handed over to authorised waste collectors and waste handlers, invoice documents, delivery notes and the like are sufficient as verification of environmentally friendly recycling or disposal, from which the exact types and quantities of waste can be seen. The builder owner must keep this verification for at least seven years and be able to present it for subsequent official inspections.

If parts of the waste produced are recycled on the company's own initiative - e.g. concrete granulate for the fortification of a car park - appropriate records must be kept for this processed waste with regard to type, quantity, origin and whereabouts, and detailed documents must also be obtained with regard to its quality (see [Step 1 for recycler and landfill operator](#)). These documents must also be kept for seven years and submitted to the authority if necessary.

In the case of preparation for reuse (examination, preparation, repair), the waste characteristic ends only at the end of the necessary recycling operation and is subject to the documentation obligation until then. Even after the end of the waste characteristic, the transfer of reusable objects should be documented (object, the transferor, the transferee, quantity or mass).

Recording obligation according to ALSAG: The contribution debtor must keep records, separated according to the basis of the contribution (seven years recording obligation).

Recording obligation according to the Recycling Building Materials Ordinance (RBV): The building owner is responsible for the documentation of the investigation of pollutants and impurities as well as the deconstruction and must keep this documentation for seven years after completion in order to be able to present it for subsequent inspections by the authorities.

Infestation with invasive neophytes and the measures taken to combat them should also be informally documented and stored for the purpose of coordinating any future steps that may be necessary.

Step 6: Neophyte Management

If there is an occurrence of invasive neophytes on the construction site, it is recommended to have the area inspected by a competent person. The latter determines suitable mitigation measures in accordance with management measures and action plan and draws up an implementation plan. Basic information, the description of the individual neophytes as well as the key points of proper combating can be found, for example, at neobiota.styria.at/.

Further information:

- [Division 13, Nature and General Environmental Protection Unit](#)
Contact partner: Dr. Andrea Krapf
- [Division 14, Waste Management and Resource Management Unit](#)
Contact partner: Dr. Ingrid Winter
- [Alien species Austria](#)

Construction, demolition, earthworks company

For environmentally friendly demolition, removal and excavation

Step 1: Consider the principles of orderly deconstruction

In principle, all materials recovered from a demolition site are considered waste. Regardless of the size of the project or the type of demolition (building, rail structures, excavation).

In principle, the building applicant must be informed of their obligations in terms of waste management at the beginning of the deconstruction project. Depending on the size of the property, the procedure for deconstruction applies as shown in this [Info sheet](#).

In accordance with [ÖNORM B 3151](#) the building owner must prepare two documents for the demolition:

The investigation of pollutants and impurities collects information concerning the property (description of property), existing pollutants and impurities. The deconstruction concept provides the structured written documentation of the planned measures for deconstruction.

If necessary, a preliminary or comprehensive investigation of pollutants and impurities must be carried out by the respective qualified persons ([demolition expert](#) respectively [authorised specialist or specialist institute](#)) and, if necessary, the submission documents of the building owner ([see step 2](#)) must be enclosed.

This does not apply to rail structures and traffic areas.

The company must inform the building applicant about the following points (obligation to check and warn):

- Deconstruction procedure
- Investigation of pollutants and impurities, deconstruction concept (> 750 t, except for rail structures and traffic areas)
- the possibilities of reuse, recycling and disposal
- ALSAG obligations

Step 2: Investigation of pollutants and impurities according to ÖNORM B3151

Preliminary investigation of the object of demolition by a person with the qualifications to do this

The necessary and regulated preliminary investigation of the demolition object by the [Recycling Building Materials Ordinance \(RBV\)](#) must be carried out by a person with the necessary qualifications:

- **comprehensive investigation of pollutants and impurities in more than 3,500 m³ of enclosed space and > 750 t of demolition waste (excluding excavated soil):**

A comprehensive investigation of pollutants and impurities is to be carried out in accordance with relevant legislation and [Authorised specialist or specialist institute](#) ÖNORM EN ISO 16000-32. In the course of this comprehensive investigation, the presence of impurities according to [ÖNORM B 3151](#) is to be examined and evaluated.

- **Preliminary investigation of pollutants and impurities for less than 3,500 m³ enclosed space but more than 750 t (without excavated soil):**

The [§ for a preliminary investigation of pollutants and impurities](#) is to be carried out for the pollutants and impurities that are explicitly listed in [§ ÖNORM B 3151](#). This preliminary investigation of pollutants and impurities is to be carried out by a [§ Deconstruction expert](#) on behalf of the building applicant prior to deconstruction. The following points should be taken into account:

1. In the research phase, documents and/or information on the construction works on and its previous use are to be collected.
2. A site inspection of the construction works must be carried out.
3. With any suspicion of pollutants or impurities which prevent the recycling of mineral building rubble, investigations are useful (e.g. analytical investigations).
4. The results of the research and site inspection must be documented in a form.

In any case, those components that can be **prepared for reuse** must also be documented in this step.

All documents prepared as well as the results and documentation of the investigation of pollutants and impurities must be prepared in preparation for deconstruction and kept by the building applicant for seven years.

All requirements with regard to investigation are, if necessary, also to be fulfilled if the deconstruction is carried out by the building owner on his own initiative. If less than 750 t of building rubble is produced during demolition, this can be used for constructional purposes on the same construction site. No environmental chemical analysis is required for this either. It must be ensured, however, that these mineral building rubble materials are free of pollutants and impurities. This is best assured by a voluntary investigation of pollutants and impurities and by carrying out the demolition as an orderly deconstruction (see [§ Control sequence](#))! A quality assurance system based on chemical analysis prevents any demands for ALSAG contributions. Furthermore, the installation must also be in accordance with the constructional engineering requirements (e.g. ÖNORM B 3140).

There are separate regulations for rail structures and traffic areas.

Step 2.1: Removal of reusable components

Combine investigations

The investigation of pollutants and impurities must include in the framework the investigation of reusable components. The combination of these investigations in one site inspection saves time. Components which can be prepared for reuse must be documented and passed on to the building owner or planner. It must also be recorded whether the components are accessible at all times or whether demolition must first be started in order to dismantle the objects.

It is recommended that the site inspection be carried out together with the building owner.

Treat reusable components as new goods

If you as a demolition company are commissioned to remove reusable components that have found a buyer, these components must be handled with extreme care. Removal must not make reuse difficult or impossible.

The removal of reusable components must be carried out before any mechanical deconstruction. Calculate the time required for any removal of reusable components that can only be removed after the demolition work has begun.

The dismantled objects must be carefully packed for transport or stored in a suitable place until reuse. If a new design already includes the use of reusable components, it is also assumed that these will still be in the same condition after installation as they were in the previous investigation.

Step 3: Define interim storage facilities and interim storage locations

Interim storage facilities are limited in time and subject to approval

An interim storage facility is a paved, officially approved area where mineral demolition materials but also subsequently recycled building materials can be stored and treated for a certain period of time.

If building rubble is temporarily stored at a demolition site for further transport or processing in a mobile facility, a permit in accordance with the Commercial Code (§ 74 ff GewO) must generally be obtained for the interim storage of large long-term construction sites. In most cases, commercial interim storage facilities are also subject to the provisions of the Water Act and construction and nature conservation regulations.

The requirements for a permissible interim storage are defined in [§ 15 para. 5 AWG 2002](#) as follows: If the waste owner is not entitled or not in a position to treat the waste appropriately, they must hand over the waste to a person authorised to collect or treat it. The transfer must be made in good time so that public interests ([§ 1 para. 3 AWG 2002](#)) are avoided; waste must be handed over regularly, at least once every three years, to a person authorised to collect or treat it.

Note: According to [§ 3 para. 1 line 1 of the Contaminated Sites Remediation Act](#) (Federal Law Gazette No. 299 / 1989 as amended by Federal Law Gazette I No. 104 / 2019), "storage of waste for disposal for more than one year or storage of waste for recycling for more than three years" is subject to the contaminated site contribution.

There are also specifications for the technical design of an interim storage location. Especially with regard to the design of the interim storage locations (pre-profiled raw plenum) and the handling of precipitation water (retention), there are specifications and guidelines - see also: [BRV Leaflet - Interim Storage Facility for Building Rubble \(March 2018\)](#)

Temporary storage of waste and recycled building materials on construction sites is not a treatment process. It can take place at suitable locations without a separate official permit. The following applies in this respect:

1. Temporary storage must take place in the construction site area. The plots of land intended for temporary storage must be included in the construction site installation plan and must be marked out when the local building negotiations take place.
2. Temporary storage may only take place at suitable locations ([§ 15 para. 3 AWG 2002](#)).

The **suitable location** should be checked for its suitability. The examination includes the subsoil conditions, surface drainage, dust exposure and access and departure routes. It must be ensured that the temporary storage does not cause any adverse effects, especially on water.

If necessary, storage of reusable components should be planned in advance. The interim storage at storage locations in the construction site area should be kept as short as possible. A longer interim storage period bears the risk of a loss of quality. The concrete possibilities for reuse should be clarified before demolition takes place. Ideally, a potential reuse component can remain in the building during the planning phase until the finishing work and handover have been clarified with the interested party.

Submission or notification of interim storage facilities to the authority

Any interim storage facilities and temporary storage shall be submitted or notified to the respective responsible authorities (e.g. building authorities or trade authorities). The following information must be provided in advance for the submission documents:

- the types of waste to be expected (in particular precise information of [key numbers](#))
- the average and maximum quantity of building rubble to be temporarily stored
- the whereabouts of the building rubble after interim storage

In any case, the **maximum duration of storage** is limited to construction site activities. If the storage periods are exceeded at interim storage facilities or temporary storage locations, or if waste is stored and treated outside of approved facilities or at locations not suitable for collection or treatment, then - in addition to a possible waste disposal order from the waste disposal officer pursuant to [§ 73 AWG 2002](#) - the **contaminated site contribution** ([§ 3 para. 1 line 1 b ALSAG](#) or [§ 3 para. 1 line 1 ALSAG](#)), shall arise at the end of the calendar quarter, which must be calculated, registered and paid by the 15th of the second calendar month following the calendar quarter (registration period).

Step 4: Removal of pollutants and impurities - reaching of the approval state

The confirmation of the "approval state" is form-free

Before deconstruction in accordance with the deconstruction concept, **pollutants and impurities** must first be removed from the property.

It must also be ensured that components that are sent for preparation for reuse are dismantled in the best possible way.

After removing the pollutants and impurities as well as those reusable components which have found a buyer, the [demolition expert](#) respectively the [authorised specialist or specialist institute](#) is to make confirmation that **the approval state** in the sense of the deconstruction concept is reached. This is done in writing, without any formal requirements and is enclosed with the documentation. In the case of deconstruction > 3500 m³, the approval must in any case be carried out by an authorised specialist or specialist institute.

Form for assistance: [Approval report - Confirmation of the approval state](#)

Only after the approval state has been confirmed is further deconstruction (including mechanical deconstruction) to be carried out in accordance with the deconstruction concept and the official stipulations.

Step 5: Carrying out demolition work professionally

Effective waste separation on site helps save costs

Demolition, excavation and removal work must be carried out in a dust-free and noise-reducing manner in accordance with the decision.

The building owner and the building contractors are responsible for the separation of the waste. With an orderly deconstruction process, a separation into the individual fractions, as pure as possible, should be achieved. For all fractions, the **separation obligation** provided for in the Recycling Building Materials Ordinance ([§ 6 RBV](#)) applies. This applies in particular to the separation of hazardous and non-hazardous waste and construction site waste from other waste. According to the Regulation, these are the following groups of substances:

- [Wood waste](#)

- [☞ Metal waste](#)
- [☞ Mineral waste](#) (concrete, asphalt)
- [☞ Construction site waste](#)
- Other (e.g. biogenic waste, [☞ Plastic waste](#))
- Hazardous waste: ([☞ Asbestos](#), [☞ CFCs in insulating materials](#))

Effective waste separation helps the company to save costs. For this purpose, sufficient and suitable collection containers (skips / containers / sack racks etc.) for the waste produced on the construction site must be provided on the construction site. The choice of collection containers is to be made in coordination with the [☞ authorised disposal companies](#). In order to achieve an optimal separation of the waste, the individual containers must be labelled and the construction site personnel must be instructed in the proper allocation of the waste. The companies and the building owner are responsible for the separation. Artificial mineral fibres, which can have asbestos-like characteristics, should also be highlighted. Further information, see [☞ Artificial mineral fibres](#).

- Info sheet [☞ Correct handling of construction site waste](#)

Step 6: Quality assured processing of building rubble

Quality assurance is the basis for high-quality recycled building materials

The building rubble resulting from demolition and excavation work is reprocessed into high-quality recycled building materials by means of quality-assured processing and thus represents a valuable secondary raw material. Mineral building rubble, uncontaminated excavated soil, uncontaminated soil components, excavated material from essentially naturally grown soil or even small quantities can be used for this purpose.

The most homogeneous possible collection of the various materials produced during construction and demolition work contributes to the high quality of the secondary products. This must be taken into account at every stage of the treatment process.

The quality-assured processing of building rubble is also attractive from a legal and financial point of view, as in this way exemption from contributions according to [☞ Contaminated Sites Remediation Act](#) (ALSAG) can be achieved (see [☞ End of waste of quality-assured recycled building materials](#)).

A distinction is made between **processing with mobile systems** directly on the construction site or in approved interim storage facilities or **processing in stationary systems**.

Quality assured production of recycled building materials

The processing of the building rubble must be carried out in a stationary or mobile system approved by the authorities. The waste types to be processed ([☞ key numbers](#)) must be included in the scope of the permit for the respective system. Contamination with pollutants and impurities, e.g. asbestos, is not permitted.

Permissible types of waste for the production of recycled building materials

In the production of recycled building materials, a distinction must be made between recycled building materials according to the Recycling Building Materials Ordinance (RBV) and according to the Federal Waste Management Plan 2017 (BAWP 2017), depending on the input materials (see [☞ RBV, Annex 1, Table 1](#) respectively [☞ BAWP 2017](#) Chapter 7.8.2).

Overview of input materials for the production of recycled building materials according to RBV and BAWP 2017 based on Tallafuss 2020

CONSTRUCTION OR DEMOLITION	EXCAVATION
<ul style="list-style-type: none"> • Building debris / concrete demolition • Road construction / asphalt • Track excavation material • Technical bulk material • Converter slag • Chippings • Excavated soil material (as an admixture component to a minor extent < 50 %) 	<ul style="list-style-type: none"> • Uncontaminated excavated soil (and components thereof) • Uncontaminated soil components from the treatment of contaminated excavated material • Excavated material with higher proportions of non-soil components • Building rubble / concrete demolition (as an admixture component to a lesser extent < 50%)
► Recycling Building Materials Ordinance ◀	► Federal Waste Management Plan 2017 ◀

Only the following types of waste are permitted for the production of recycled building materials according to RBV, Annex 1, Table 1.

SN	Sp.	Waste description	Specification
31220		Converter slag	
31407		Ceramics ¹⁾	
31409		Building debris (no construction site waste)	
31409	18	Building debris (no construction site waste)	only mixtures of selected wastes from construction and demolition measures
31410		Road construction	
31411	29	Excavated soil ²⁾	Excavated soil with background contamination
31411	30	Excavated soil ²⁾	Class A1
31411	31	Excavated soil ²⁾	Class A2
31411	32	Excavated soil ²⁾	Class A2G
31411	33	Excavated soil ^{3) 4)}	Inert waste quality
31411	34	Excavated soil	Technical bulk material containing less than 5 % by volume of non-soil components
31411	35	Excavated soil	Technical bulk material, from 5 % by volume of non-soil components
31427		Concrete demolition ⁵⁾	
31427	17	Concrete demolition	only selected waste from construction and demolition measures
31467		Track ballast ⁴⁾	
31498	10	reclaimed slag asphalt	Annex 1 Table 1 of the Recycling Building Materials Ordinance
31499	10	slag-containing technical bulk material	Annex 1 Table 1 of the Recycling Building Materials Ordinance
54912		Bitumen, asphalt	
91501	21	Road sweeping	only chippings from the natural aggregate

¹⁾ Only bricks (e.g. defective batches) from production

²⁾ Only with basic characterisation according to [DVO 2008](#) on the basis of an analytical investigation and compliance with the appropriate limit values in minor quantities as a mixing component for the technical improvement of recycled building materials (in particular to supplement the grading curve)

³⁾ Only soil components with basic characterisation according to DVO 2008 on the basis of a chemical-analytical investigation and compliance with the limit values for inert waste landfills for use in minor quantities as a mixing component for the technical improvement of recycled building materials (in particular to supplement the grading curve) or track excavation material (including mixtures with technical bulk material from the substructure) in accordance with the requirements of footnote 4.

⁴⁾ For track excavation material (including mixtures with technical bulk material from the substructure) or track ballast, the suitability for the production of a recycled building material shall be demonstrated by a basic characterisation according to DVO 2008 on the basis of a chemical-analytical investigation and compliance with the limit values for inert waste landfills. For material from track areas with a low probability of contamination (HE 1 according to Annex 4 Part 2 Chapter 1.6 DVO 2008) a chemical-analytical investigation can be omitted if the external authorised specialist or specialist institute confirms that no contamination is present on the basis of visual and olfactory findings and on the basis of any previous knowledge.

⁵⁾ Also concrete (e.g. defective batches) from production

Incoming inspection, quality requirements, quality assurance, designation and end of waste for recycled building materials according to RBV

According to the [Recycling Building Materials Ordinance \(RBV\)](#) the following steps are necessary for the preparation of the **permissible substances**:

1. [Receiving inspection](#)

Visual inspection of the material to be processed (building rubble) with regard to its suitability for the production of recycled building materials (unmixed, free of contaminants). In particular, the material must undergo an examination for inadmissible mixing and inadmissible waste or contamination in accordance with § 7 RBV (e.g. asbestos, artificial mineral fibres, (H)CFCs, etc.).

This check also includes the documentation made during deconstruction. The record of the investigation of pollutants and impurities, the deconstruction concept and the confirmation of the approval state are used here.

Quality assurance of the material before the treatment process: The evaluation certificate according to Annex 3 RBV has to be available and has to be checked by the producers of recycled building materials for completeness, plausibility and conformity with the delivered waste.

2. [Quality requirements](#)

Environmental compatibility: The production is carried out either according to quality requirements (quality classes, parameters and limits) according to [Annex 2 RBV](#).

Constructional requirements: The constructional requirements according to the state-of-the-art for the respective area of application must be observed.

Admixtures of natural rock material may only be used in compliance with the mixing ban ([§ 15 para. 2 AWG 2002](#)- no change in environmental impact).

3. [Quality assurance](#)

According to the [Recycling Building Materials Ordinance \(RBV\)](#) environmental compatibility must be ensured for the production of recycled building materials - this is done by means of quality assurance (QA). QA, in the form of a chemical investigation, is carried out using one of the following three procedures:

- Standard procedures (especially for recycling companies)
- Single batches (up to 500 t) (especially for direct installation)

- QS for certain wastes (special cases of traffic areas, steel mill slag, technical bulk material)

For quality assurance (this includes: Declaration inspection during the standard procedure, quality assurance of single batches and quality assurance for recycled building materials from certain wastes), an **external authorised specialist or specialist institute** must be consulted (see [Annex 3 RBV](#)).

According to [§ 10 para. 4 RBV](#) chemical analyses during the quality assurance with regard to environmental compatibility must be performed by an accredited **conformity assessment body**.

Quality assurance - Standard procedures

Maximum assessment standard: 50 production hours

"The standard procedure for quality assurance of recycled building materials consists of a declaration inspection by an external authorised specialist or specialist institute and a factory production check. Each batch produced shall be separately analysed and examined. The size of a batch to be evaluated may not exceed the quantity of 50 production hours (i.e. usually the production of one week)" (RBV Annex 3)

"For the declaration inspection, the first produced batch (maximum 50 production hours, minimum quantity 200 t) of a recycled building material according to this chapter must be sampled and chemically-analytically examined by an external authorised specialist or specialist institute. The declaration inspection shall be repeated at least once in each subsequent production year for each recycled building material" (RBV Annex 3)

"The environmental compatibility within the scope of the factory production check (by the manufacturer) must be analytically proven for all batches (maximum 50 production hours) which are not examined within the framework of the declaration inspection" (RBV Annex 3)

Quality assurance - Single batch procedures

Maximum assessment standard: 500 t

The respective batch of any size must be examined according to the specifications of ÖNORM S 2127 by an external authorised specialist or specialist institute with a maximum assessment standard of 500 t.

Quality assurance - Procedures for specific waste

Process for recycled building materials from steelworks slags directly from production

"Quality assurance for recycled building materials from steelworks slags directly from production shall be performed as basic characterisation as a waste stream according to [Annex 4 Part 2 Chapter 3 DVO 2008](#) by an external authorised expert or specialised institute, whereby the parameter scope and limit values of Table 4 of Annex 2 apply. All limited parameters in Table 4 of Annex 2 shall be examined and assessed as parameters relevant to the limit value

Process for recycled building materials from bituminous or hydraulically bound surface or base layers from the deconstruction or redevelopment of traffic areas

"Quality assurance for recycled building materials from bituminous or hydraulically bound surface or base layers (e.g. finishing asphalt) from the deconstruction and redevelopment of traffic areas can be carried out by means of sampling through individual samples (e.g. drill cores, milling samples) and their analytical investigation even before the start of the demolition or milling activity (in-situ)" ([Annex 3 RBV](#))

In principle, for each process, the investigation must be carried out by an authorised specialist institute and the parameters of the Recycling Building Materials Ordinance (table from [§ Annex 2 RBV](#)) can be used for classification. The respective use is made according to these quality classes, or prohibitions of use apply.

4. Designation of the quality-assured recycled building materials

The manufactured building materials must be clearly labelled as recycled building materials. The designation must be in accordance with the state of the art and in any case contain the quality class according to the Recycling Building Materials Ordinance, [§ Annex 2 RBV](#).

When the recycled building material is handed over to a third party, the designation, areas of application and prohibitions of use must be stated either on the packaging or, in the case of unpackaged recycled building materials, on a supplementary sheet.

The designation must also appear on the invoice and the delivery note.

In order to be allowed to place a recycled building material for which European technical specifications exist on the market as such, a [CE conformity marking](#) is required under the Styria Construction Products and Market Surveillance Act 2013.

5. Waste end of quality assured recycled building materials

The end of the waste characteristic can only be achieved with a recycled building material of quality class U-A according to [§ Annex 2 RBV](#) with the transfer by its manufacturer to a third party.

For this purpose, the manufacturer of recycled building materials must issue a declaration of conformity for each recycled building material for which the end of waste characteristics according to [§ 14 Para. 1 RBV](#) is to be reached, regarding the implementation of the quality assurance according to [§ 10 RBV](#) and the compliance with the limit values of quality class U-A. This declaration can be made together with the declaration of performance according to the EU Construction Products Regulation.

For recycled building materials of all other quality classes, as before the publication of the Recycling Building Materials Ordinance, an end to the waste characteristic can only be achieved through the permitted use. Inadmissible use leads to the obligation to pay contributions according to ALSAG.

Note: Since CE marking does not allow any conclusion to be drawn as to whether the product has been checked by independent bodies for compliance with the directives, it is not a sufficient criterion for exemption from contributions under ALSAG. In order to be able to use recycled building materials on construction sites free of charge in accordance with the Contaminated Sites Remediation Act (ALSAG), in addition to the permitted use within the framework of a quality assurance system, the consistent environmental quality of the processed materials must also be guaranteed by continuous investigation.

Incoming inspection, quality requirements, quality assurance, designation and end of waste for recycled building materials according to [§ BAWP 2017](#)

1. Receiving inspection

Visual check of the material to be processed with regard to its suitability for the production of recycled building materials (free of contaminants). This check also includes a plausibility check of any existing basic characterisation according to BAWP 2017 of the delivered material.

2. Quality requirements

Environmental compatibility: The production has to be carried out according to the quality requirements (quality classes, parameters and limits) of chapters 7.8.2 and 7.8.6 of BAWP 2017.

Note on the quality of the starting materials: Only uncontaminated excavated soil or the uncontaminated soil components obtained from it may be used for the production of recycled building materials of quality classes A1 and A2-G. For the production of recycled building materials of quality A1, the starting material must also comply with the limit values for the TOC total and the TOC in the eluate of quality class A2.

Constructional requirements: The constructional requirements according to the state-of-the-art for the respective area of application must be observed.

An admixture of less than 50 % of mineral building rubble or primary raw materials is only permitted under the conditions of Chapter 7.8.2, BAWP 2017.

3. Quality assurance

According to BAWP 2017, the production of recycled building materials must be environmentally compatible.

Possibilities for quality assurance

1. Quality assurance of the material **before production of recycled building materials** according to chapter 7.8.3 or 7.8.5 BAWP 2017
=> Quality class of starting material = Quality class of finished recycled building material

Prerequisites: Concentration of pollutants in partial fractions is not to be expected, no admixture of materials.

2. Quality assurance **on the finished recycled building material** according to Chapter 7.8.5 BAWP 2017 or alternatively according to Annex 3, RBV (Standard Quality Assurance Procedures) with the parameter scope from Chapter 7.8.6 of BAWP 2017 (see also [☐ Quality assurance - Standard procedures](#))

4. Designation of the quality-assured recycled building materials

The manufactured building materials must be clearly labelled as recycled building materials. The recycled building material shall be labelled according to its constructional characteristics and shall also contain the quality class according to Chapter 7.8.2 BAWP 2017 (A1, A2, A2-G, BA or IN).

When the recycled building material is handed over to third parties, the designation, areas of use and prohibitions on use must be stated either on the packaging or, with unpackaged recycled building materials, on a supplementary sheet (see Table 79, Chapter 7.8.2, BAWP 2017).

The designation must also appear on the invoice and the delivery note.

In order to be allowed to place a recycled building material for which European technical specifications exist on the market as such, a [☐ CE conformity marking](#) is required under the Styria Construction Products and Market Surveillance Act 2013.

5. Waste end of quality assured recycled building materials

The end of waste of recycled building materials produced according to the specifications of BAWP 2017 can only be achieved through permitted recycling (see Table 79, Chapter 7.8.2, BAWP 2017). Inadmissible recycling leads to the obligation to pay contributions according to ALSAG.

Note: Since CE marking does not allow any conclusion to be drawn as to whether the product has been checked by independent bodies for compliance with the directives, it is not a sufficient criterion for exemption from contributions under ALSAG. In order to be able to use recycled building materials on construction sites free of charge in accordance with the Contaminated Sites Remediation Act (ALSAG), in addition to the permitted use within the framework of a quality assurance system, the consistent environmental quality of the processed materials must also be guaranteed by continuous investigation.

Step 7: Characterisation of excavated soil

Characterisation is the basis for recycling outside the construction site

1. As soon as unloaded [excavated soil](#) is removed from the naturally produced soil, it is basically waste.
2. An exception is uncontaminated excavated soil which is used on site in its natural condition for construction purposes ([§ 3 para. 1 line 8 AWG 2002](#)).

If excavated material is to be recycled or used elsewhere without further pre-treatment or preparation, the following requirements must be met in accordance with [BAWP 2017](#) Chapter 7.8.5, a basic characterisation including chemical analysis for this material by an external authorised specialist or specialist institute in accordance with the specifications of [Landfill Ordinance 2008](#) (DVO 2008) (exemption regulations for small quantities of uncontaminated excavated soil and road surface material from roads with low traffic volume according to BAWP 2017, [see below](#)).

A basic characterisation includes the collection and assessment of the necessary information, the preparation of the sampling plan, the implementation of the sampling and the evaluations and conclusions. The external authorised specialist institute must be accredited as an inspection body for this purpose (see [DVO 2008, Annex 4, Part 1](#)).

In DVO 2008, Annex 4, Part 2, a distinction is made between

1. the basic characterisation of excavated material before the start of excavation or clearance activities (in-situ) and
2. basic characterisation of excavated material after the start of excavation or clearance activities (ex-situ)

where a basic characterisation of excavated material is to be carried out in an optimal way **before the start** of the excavation or clearance activities.

NOTE: The basic characterisation of road surface material from roads with a traffic volume of more than 10,000 average daily traffic volume (DTV) for non-agricultural recultivation is to be carried out exclusively as other one-off waste (maximum assessment standard 200 t).

For a recycling of excavated soil, the parameter scope according to Tables 80 and 81 in BAWP 2017, Chapter 7.8.6 is to be used (initial soil analysis). Additional parameters must be examined under the prerequisites specified in BAWP 2017, Chapter 7.8.5. This is the case, for example, where there is a suspicion of contamination or increased levels of PCBs, dioxins or pesticides.

The documentation of the basic characterisation is in the form of an evaluation certificate.

The production of recycled building materials from excavated soil is dealt with in [Step 6](#).


Special arrangements

Soils that do not show any obvious contamination can be used directly on site. As this is not waste, no basic characterisation is necessary.

Small quantities according to Federal Waste Management Plan 2017, Chapter 7.8.3 (< 2,000 t)

For the recycling of small quantities of excavated soil (< 2000 t) from harmless areas, no analytical investigation is necessary for the basic characterisation under the following conditions:

- With an excavation or construction site, a maximum of 2,000 t (equivalent to around 1,100 m³) of excavated soil material accumulates as waste
- The material concerned is excavated soil
- On the site where the small quantity is excavated, there are no known pollutant-relevant events or commercial (previous) use that would indicate a possible contamination of the soil
- No apparent contamination was detected during excavation

For the documentation of the recycling of small quantities, the waste producer (building owner) must create a  "Excavation information for small quantities of excavated soil" and to describe the material fundamentally by the excavating company.

Restrictions on recycling:

- Installation only for projects with a maximum of 2,000 t of excavated soil for subsoil backfilling or soil recultivation
- With a regional, known background contamination, only material with the same contamination
- Use in or directly above groundwater is not permitted

Road surface material from roads with low traffic intensity

Under the following conditions, no chemical analyses are required for the basic characterisation of road surface material of low traffic intensity:

- The road surface material comes from road surfaces without any asphalt, slag or other non-soil substances
- No contaminants are known, suspected or perceived.
- The proportion of litter is less than 1 % by volume
- With an average daily traffic volume (DTV) of less than 500, the recycling for agricultural soil recultivation is possible
- With a DTV below 5,000, non-agricultural soil recultivation is possible

Material from natural bulk movements

For material from excavated water body sediments and material of natural bulk movements (bed load removal material, rockfall material or mudslide debris), confirmation from an external authorised specialist or specialist institute is sufficient that anthropogenic contamination can be excluded or is not known due to the origin of the material and an apparent evaluation.

Raw materials for industrial applications

For industrial applications, the respective technical requirements for the material must be observed and therefore individual chemical analyses must be carried out.

Excavated soil Basic characterisation	
WITHOUT CHEMICAL ANALYSIS	WITH CHEMICAL ANALYSIS by an external authorised specialist or specialist institute
<ul style="list-style-type: none"> • Small quantities < 2000 t • Road surface material from roads with low traffic intensity • Material from natural bulk movement 	<ul style="list-style-type: none"> • Use for the production of recycled building materials • Subsoil backfilling / soil recultivation > 2000 t

Waiting for verification of evaluation

Until the verification of assessment is available, the material may either not be excavated or has to be temporarily stored in an interim storage facility approved for this purpose.

Together with the excavated material, an evaluation certificate or excavation information shall be handed over to the building owner on whose behalf the material is to be recycled.

The evaluation certificate is in any case necessary for the documentation of the recycling measures in the form of installation information (> 2000 t of installed excavated soil). The responsibility for the documentation lies with the building owner.

The installation information is to be kept together with the evaluation certificate of the building owner for at least seven years.

- **Form:** [☐ Installation information for \(more than 2,000 t\) uncontaminated excavated soil](#)

For the recycling of small quantities of excavated soil (< 2000 t) from harmless areas, under certain conditions no analytical investigation is necessary for basic characterisation. Verification must be provided both by the waste producer (building owner) and by the excavating company.

- **Form:** [☐ Excavation information for a small quantity \(maximum 2,000 t\) of uncontaminated excavated soil](#)

NOTE: A small amount of excavated soil may be used without analytical investigation only in construction projects where, in turn, no more than 2,000 t of excavated material are used in total for a recultivation layer or for subsoil backfilling.

Further information on this:

Federal Waste Management Plan 2017: [☐ Chapter 7.8.3 Special regulations for small quantities of uncontaminated excavated soil and road surface material of low traffic intensity](#)

Step 8: Carrying out permissible backfilling of the terrain and constructional fillings

Approval of the project is required before any construction work is carried out

Recycling is possible for the following materials:

- Uncontaminated excavated soil
- Uncontaminated soil components
- Small quantities of excavated soil
- Road surface material from roads with low traffic intensity
- Road surface material from roads without contaminants by asphalt, slag etc.
- Recycling building materials

The following steps must be taken in any event for backfilling measures or recultivation measures:

1. Create project:
 - Data of the project acquirer
 - Plot number
 - Description of the planned measure (e.g. appropriate agricultural recycled)
 - Description of origin, quantity and quality of the material (quality assurance)
 - Possible chemical investigations
 - Observe the requirements of the [§ 10 ALSAG](#) [Guidelines for proper soil recultivation!](#)
2. Agreement with the landowner = bulking order. This is an informal letter with:
 - plot number,
 - contract and definition of who is issuing the contract and who is the executor,
 - material and quantity,
 - period of time
3. Obtain permit (municipality / magistrate, district authority)
 - Observe Building Act, Forestry Act, Water Act, Nature Conservation Act etc.
 - Legal certainty with regard to ALSAG (declaratory proceedings in accordance [§ 10 ALSAG](#))
4. Do not commence recycling measures (e.g. fillings) until all the necessary permits have started or the decision has become legally binding.
5. [Observe ALSAG obligations - see step 9](#)

Examples of permitted uses

1. **Excavated** **soil**
Backfilling and backfilling of the terrain are free of charge within the framework of ALSAG, provided that this is done in a permissible manner (all necessary permits, notifications, etc.) and appropriate verification of suitability of the excavated soil (evaluation certificate, installation information) is available.
2. **Building** **rubble**
The constructional use of recycled building materials from building rubble or excavated soil is permissible within the framework of a permissible construction project, e.g. the production of base or surface layers for car parks or storage locations. Prerequisites here are according to [§ 10 ALSAG](#) [Recycling Building Materials Ordinance \(RBV\)](#) or [§ 10 ALSAG](#) [Federal Waste Management Plan](#) environmental and constructional ([CE conformity marking](#)) quality-assured recycled building materials and a permit for the project. Furthermore, it may only be used to the extent absolutely necessary - in accordance with the construction plans.

Step 9: Determine, register and pay ALSAG contribution

Responsibility for the ALSAG contribution lies with the customs authority

The contaminated site contribution is an purpose-designated fee collected for the disposal, backfilling or shipment of certain types of waste. The [Customs Authority](#) is responsible for the examination and collection of the contaminated site contribution.

Contaminated site contribution obligation

- Landfill of waste
- Backfilling of uneven terrain or making adjustments to the terrain with building debris and (soil) excavated material or building rubble
- Shipments of waste for the purpose of landfilling or backfilling (e.g. with building debris or building rubble outside the Federal territory)
- Storage of waste for more than one year for disposal or more than three years for recycling

Details of the obligation to pay contaminated site contribution: [§ 3 Contaminated Sites Remediation Act](#)

Contaminated site contributions do not apply if building rubble and (soil) excavated material is sent for permissible recycling or permissible reuse - see [Types of waste!](#)

Contribution debtors are

- the landfill operator or
- for shipment outside the Federal territory, the person who is obliged to notify, or
- the initiator (building owner) of an activity that is subject to contributions (building owner or building contractor). If this cannot be determined, the contribution debtor is the person who tolerates the activity (e.g. landowner, farmer).

Details of contribution debtors: [§ 4 Contaminated Sites Remediation Act](#)

The contribution debtor must keep records, separated according to the basis of the contributions (**seven years obligation to keep records**).

Contaminated site contributions per tonne or part thereof

(Status: 10/2020, [§ 6 ALSAG](#))

mineral building rubble (see Annex 2 DVO 2008)	€ 9.20
Excavated material (if not free of charge)	€ 9.20
other mineral wastes (see Annex 1, Tables 5 and 6 of DVO 2008)	€ 9.20
other waste	€ 87.00

If waste is landfilled, the (sub)class of landfill decides the amount of the contribution:

Excavated soil landfill	€ 9.20
Landfill of inert waste	€ 9.20
Building rubble landfill	€ 9.20
Other waste - landfill for residual materials	€ 20.60
Bulk waste landfill or hazardous waste landfill	€ 29.80

When to pay

The contaminated site contribution is a self-assessment levy. The self-calculated contribution must in any case be declared and paid to the customs office of the place of business after the end of the calendar quarter in which the activity took place (by the 15th of the second following month at the latest).

Normally for landfill - contaminated site contribution included

As a matter of principle, building rubble is to be recycled. If this is not possible, the waste is usually disposed of by a waste disposal company on behalf of the construction company or the building owner or the waste is disposed of in a landfill. In this case, the landfill operator will generally include the contaminated site contribution in the landfill price (or the disposer in the disposal price). In many cases, the contaminated site contribution is shown separately. Due to the possibly changing contribution rates and basis, it is recommended to pay attention to the reported contaminated site contribution.

The information transfer is always in electronic form

- **Information** for all commercial operators, companies, tax consultants and private individuals can be found at the Contaminated Sites Contribution Information System Customs under the topic [Contaminated sites contribution](#).
- **Online registration for contributions** under www.bmf.gv.at > Financial Online
- **Written contribution registration** with the form "Alb 4" "[Contaminated site contribution registration](#)". This form is currently available from [Form database](#) >> Selection > Alb 4 (enter).

Hazardous and non-hazardous types of waste are classified according to [Waste List Ordinance](#) by **key number**, waste description and, if necessary, including a specification (Note: Annex 1 of the amendment BGBl. II No. 409 / 2020 comes into force in January 2022). The [current, consolidated list of waste](#) can be obtained from the EDM portal.

Types of waste

The Waste Management Act ([§ 2 para. 1 AWG 2002](#)) provides for two waste terms:

Subjective waste term: The owner wants to dispose of it or has disposed of it.

Objective waste term: Separate treatment is in the public interest because negative effects on the environment are to be expected (e.g: backfillings in the water conservation area).

Excavated material, excavated soil and building rubble are waste. **Exemption** under [§ 3 para. 1 line 8 AWG 2002](#): Non-contaminated excavated soil used in situ, in its natural condition, for construction purposes.

Type of waste	Description
Excavated material	Is an umbrella term and includes any material produced by excavation or removal.
Building rubble	Is the umbrella term for all waste from construction activities, which is produced during demolition or renovation work
Municipal waste (not construction and demolition waste!)	Waste from private households and other waste similar in nature or composition to waste from private households.
Plastic waste	Without packaging, such as plastic profiles, plastic pipes, foam and insulation boards etc.
Wood waste	Treated or untreated

Metal waste	Iron and steel wastes, non-ferrous metal scrap / non-ferrous metal packaging, other wastes from group 35 of the list of wastes
Glass waste	Flat Glass
Asbestos waste	Asbestos / asbestos dust, asbestos cement, asbestos cement dust

Excavation can be

Types of waste	Description
Topsoil	Is part of the total soil organic matter
Excavated soil	<p>Material obtained by excavating or clearing away naturally occurring soil or subsoil</p> <p>The proportion of non-soil mineral components, e.g. mineral building rubble, must not exceed 5 % by volume</p> <p>Percentage of non-soil organic components, e.g. plastics, wood, etc. must not exceed 1 % by volume</p>
Uncontaminated excavated soil	Excavated soil for which no relevant contamination or contaminants are apparent and based on existing preliminary information
Soil components	<p>Are components of soil or subsoil that have been created either by excavating or clearing away non-naturally occurring soil or subsoil or by the treatment (e.g. screening) of excavated material:</p> <p>The proportion of non-soil mineral components, e.g. mineral building rubble, must not exceed 5 % by volume</p> <p>Percentage of non-soil organic components, e.g. plastics, wood, etc. must not exceed 1 % by volume</p>
Uncontaminated soil components	Fractions of uncontaminated excavated soil (e.g. after screening)
Technical bulk material	Is non-hazardous excavated material from constructional layers such as rolled surfaces, frost cases, drainage layer, etc.
Track excavation material	<p>Occurs at track construction sites:</p> <p>Track ballast material: Track ballast incl. abrasive and fine material with undefined grain size</p> <p>Foundation course material: layer made of technical bulk material</p> <p>Subsoil material: naturally occurring existing soil or excavated material below the subplanum</p>

Step 10: Recording waste / EDM

Recording obligations according to § 17 AWG 2002

Construction companies can take on the following roles within the scope of the construction activities to be carried out

1. **Service providers**
only perform their construction services on the construction site, such as demolition, excavation, etc.; they have no recording obligation in accordance with [§ 17 para. 1 AWG 2002](#). In this case, the obligation to keep records lies with the authorised waste collector or waste handler who takes over the waste produced.
2. **Transporters**
are responsible for the transport between the point of origin and the treatment facility. They work on behalf of a third party (**waste owner**) and are subject to the following regulations **regarding non-hazardous waste according to [§ 17 para. 2 line 4 AWG 2002](#) and have no recording obligation.**

With regard to the **transport of hazardous waste, the recording obligation is deemed to have been fulfilled when the consignment notes are collected and stored** in accordance with [§ 18 para. 1 AWG 2002](#) or when the transferee sends the consignment notes to the Governor of the Province via the electronic register (eRAS/EDM).

3. **Authorised waste collector,**
who have a contract for the disposal of the waste with the building owner, thus take over the power of disposal over the waste and become the waste owner. This means that the collector has fulfilled the obligation to keep records in accordance with [§ 17 para. 1 AWG 2002](#) and to keep separate records for each calendar year of the nature, quantity, origin and whereabouts of the waste. If the collector only acts as a transporter, they are exempt from the obligation to keep records (see Transporters).

Registration and reporting obligations for waste collectors and waste handlers who are obliged to keep records according to [§ 21 AWG 2002](#)

Construction companies which, in addition to construction activities, also take on the role of waste collector or waste handler must register in the [Electronic register for systems and personal master data \(eRAS\)](#) in accordance with [§ 22 AWG 2002](#) at [§ 4](#) and enter their master data in accordance with the Waste Balance Ordinance [§ 4 AbfallbilanzV](#) in conjunction with [Annex 1 AbfallbilanzV](#).

In addition, waste collectors and waste handlers have, in accordance with the Waste Balance Ordinance [§ 5 AbfallbilanzV](#) in conjunction with [Annex 2 AbfallbilanzV](#) to maintain continuous electronic **records** of the type, quantity, origin and whereabouts of waste, and thus also of building rubble, for each calendar year.

Waste collectors and waste handlers must report an **annual waste balance**, summarised in a single XML file, to the Governor of the Province **by 15 March each year at the latest**, covering the previous calendar year.

- Presentation for the [Waste Balance Ordinance](#)
- Video instructions for the [Transmission of the annual waste balance declaration](#)
- Information about registration for the [Electronic data management of the BMK](#)
- ONLINE registration application under www.edm.gv.at

For further information regarding the obligation to keep records, see [Step 4 Recycler and landfill operator](#)

Step 11: Neophyte Management

Invasive neophyte occurrence on the construction site

If there is an occurrence of invasive neophytes on the construction site, suitable combating strategies shall be applied. Combating measures must be adapted to the type of invasive neophytes, the management and action plan, and their dissemination on the construction site.

Invasive species must be mowed, dug up, milled or chemically combated before seed formation, depending on the size of the occurrence. The preferred treatment method for the mowed material is thermal recycling. Material that cannot propagate can also be treated biologically (composting, fermentation). In addition to the technical suitability of the facility (e.g. suitable aggregates for pre-shredding and injection), an appropriate permit for the treatment of this waste is a prerequisite.

Individual occurrences on the project perimeter can be uprooted or excavated, depending on the species, whereby the ground must be covered and immediately planted with vegetation. Polluted soil material should not be mixed with unpolluted material (either reuse directly in the neophyte zone or, in case of excess material, declare it correctly and take it to a suitable landfill).

Accompanying measures (cleaning of machinery, proper packaging for transport to a treatment facility) must be taken to prevent the spread of seeds or growing plant parts.

Further information:

- [!\[\]\(b1b781be830eb908d845c527ab08d5f8_img.jpg\) Division 13, Nature and General Environmental Protection Unit](#)
Contact partner: Dr. Andrea Krapf
- [!\[\]\(2176a4ba510fa27404d783166e891577_img.jpg\) Division 14, Waste Management and Resource Management Unit](#)
Contact partner: Dr. Ingrid Winter
- [!\[\]\(a3b1c8d49688274496e55f2751cb8993_img.jpg\) Alien species Austria](#)
- [!\[\]\(428d7e9195be7f8a26074c24b6c91839_img.jpg\) Alien species Province of Styria](#)

Recycler and landfill operator

For a professional treatment or landfilling of the non-recyclable waste

Step 1: General information on quality assurance

Orderly deconstruction is a prerequisite for high-quality recycled building materials

A large number of quality assurance measures are already linked to the extraction of building rubble, which is to be processed into recycled building materials after appropriate preparation, at the demolition site. The basis for high quality is orderly deconstruction.

The most important principle here is the separate collection of all waste generated on the construction site and its documentation.

According to the [§ 4 Recycling Building Materials Ordinance \(RBV\)](#), before demolition of a construction work or several construction works within the framework of a construction project, in which a total of more than 750 t of construction and demolition waste, excluding excavated soil, is produced, a preliminary investigation of pollutants and impurities must be carried out by a [person familiar with deconstruction](#) ([§ 4 ÖNORM B 3151](#)). For properties with a gross volume (width x length x height) of more than 3500 m³ and more than 750 t of construction and demolition waste, a comprehensive investigation of pollutants and impurities must be carried out by an external [authorised specialist or specialist institute](#). The investigation of pollutants and impurities is to be carried out in accordance [§ 4 para. 3 RBV](#) and also be linked to the investigation of reusable components (reuse). Thus, in addition to the pollutants and impurities to be removed, objects for preparation for reuse will also be identified.

Deconstruction may only be started after the approval state has been reached. The confirmation of the approval status has to be carried out on behalf of the building applicant by a person who is familiar with deconstruction or a [authorised specialist or specialist institute](#).

For further deconstruction, there is also an obligation to separate the main components. This is the responsibility of the building contractor and the building applicant.

These obligations are necessary for construction and demolition waste, as it is usually no longer possible to produce high-quality recycled building materials, even by using complex processing technology.

Procedure overview of demolition according to the [§ 4 ÖNORM B 3151 "Deconstruction of buildings as standard demolition method"](#) issued on 1 December 2014 - [see info sheet](#).

Permissible types of waste for the production of recycled building materials

In the production of recycled building materials, a distinction must be made between recycled building materials according to the Recycling Building Materials Ordinance (RBV) and according to the Federal Waste Management Plan 2017 (BAWP 2017), depending on the input materials (see [§ 4 RBV, Annex 1, Table 1](#) respectively [§ 4 BAWP 2017](#) Chapter 7.8.2).

Overview of input materials for the production of recycled building materials according to RBV and BAWP 2017 based on Tallafuss 2020

CONSTRUCTION OR DEMOLITION	EXCAVATION
<ul style="list-style-type: none"> • Building debris / concrete demolition • Road construction / asphalt • Track excavation material • Technical bulk material • Converter slag • Chippings • Excavated soil material (as an admixture component to a minor extent < 50 %) 	<ul style="list-style-type: none"> • Uncontaminated excavated soil (and components thereof) • Uncontaminated soil components from the treatment of contaminated excavated material • Excavated material with higher proportions of non-soil components • Building rubble / concrete demolition (as an admixture component to a lesser extent < 50%)
► Recycling Building Materials Ordinance ◀	► Federal Waste Management Plan 2017 ◀

SN	Sp.	Waste description	Specification
31220		Converter slag	
31407		Ceramics ¹⁾	
31409		Building debris (no construction site waste)	
31409	18	Building debris (no construction site waste)	only mixtures of selected wastes from construction and demolition measures
31410		Road construction	
31411	29	Excavated soil ²⁾	Excavated soil with background contamination
31411	30	Excavated soil ²⁾	Class A1
31411	31	Excavated soil ²⁾	Class A2
31411	32	Excavated soil ²⁾	Class A2G
31411	33	Excavated soil ^{3) 4)}	Inert waste quality
31411	34	Excavated soil	Technical bulk material containing less than 5 % by volume of non-soil components
31411	35	Excavated soil	Technical bulk material, from 5 % by volume of non-soil components
31427		Concrete demolition ⁵⁾	
31427	17	Concrete demolition	only selected waste from construction and demolition measures
31467		Track ballast ⁴⁾	
31498	10	reclaimed slag asphalt	Annex 1 Table 1 of the Recycling Building Materials Ordinance
31499	10	slag-containing technical bulk material	Annex 1 Table 1 of the Recycling Building Materials Ordinance
54912		Bitumen, asphalt	
91501	21	Road sweeping	only chippings from the natural aggregate

¹⁾ Only bricks (e.g. defective batches) from production

²⁾ Only with basic characterisation according to [DVO 2008](#) on the basis of an analytical investigation and compliance with the appropriate limit values in minor quantities as a mixing component for the technical improvement of recycled building materials (in particular to supplement the grading curve)

³⁾ Only soil components with basic characterisation according to DVO 2008 on the basis of a chemical-analytical investigation and compliance with the limit values for inert waste landfills for use in minor quantities as a mixing component for the technical improvement of recycled building materials (in particular to supplement the grading curve) or track excavation material (including mixtures with technical bulk material from the substructure) in accordance with the requirements of footnote 4.

⁴⁾ For track excavation material (including mixtures with technical bulk material from the substructure) or track ballast, the suitability for the production of a recycled building material shall be demonstrated by a basic characterisation according to DVO 2008 on the basis of a chemical-analytical investigation and compliance with the limit values for inert waste landfills. For material from track areas with a low probability of contamination (HE 1 according to Annex 4 Part 2 Chapter 1.6 DVO 2008) a chemical-analytical investigation can be omitted if the external authorised specialist or specialist institute confirms that no contamination is present on the basis of visual and olfactory findings and on the basis of any previous knowledge.

⁵⁾ Also concrete (e.g. defective batches) from production

Other demolition materials of mineral origin,

such as polystyrene concrete, gypsum, fibre cement, etc. are generally not suitable for the production of recycled building materials and must therefore be rejected at the very first collection of the demolition mass.

Step 2: Acceptance of building rubble at a landfill

Accompanying documents are a prerequisite for acceptance at the landfill

The following documents are necessary when accepting building rubble at a landfill for disposal

Waste

information

In addition to basic information (waste owner, place of generation, type of waste), this contains above all the quantity of waste to be delivered. The waste information is to be provided by the waste owner and is necessary for each individual type of waste.

📄 [Form generator waste information according to DVO 2008](#)

📄 [PDF forms for waste information](#)

Evaluation

certificate

For wastes not explicitly listed in 📄 [Annex 2 DVO 2008](#) (e.g. unmixed building debris) are listed, an evaluation certificate is necessary in addition to the waste information.

For this, a 📄 [Authorised specialist institute](#) for a basic characterisation and from this the "waste information is transmitted to the commissioned specialist or specialist institute". The most important characteristics relevant for permanent deposition are determined and the evaluation certificate is prepared. A lead time of at least three weeks from the time of sampling is to be expected. Evaluation should be carried out before excavation begins. Both documents must then be presented to the landfill operator.

Consignment note

- The submission of a consignment note (electronic or paper) is necessary when delivering hazardous waste (e.g. asbestos-cement waste) to the landfill.
- For information on the consignment note see 📄 www.edm.gv.at.

Step 3: Quality assured processing of building rubble

Quality assurance is the basis for high-quality recycled building materials

The building rubble resulting from demolition and excavation work is reprocessed into high-quality recycled building materials by means of quality-assured processing and thus represents a valuable secondary raw material. Mineral building rubble, uncontaminated excavated soil, uncontaminated soil components, excavated material from essentially naturally grown soil or even small quantities can be used for this purpose.

The most homogeneous possible collection of the various materials produced during construction and demolition work contributes to the high quality of the secondary products. This must be taken into account at every stage of the treatment process.

The quality-assured processing of building rubble is also attractive from a legal and financial point of view, as it allows exemption from contributions in accordance with [§ Contaminated Sites Remediation Act](#) (ALSAG).

A distinction is made between **processing with mobile systems** directly on the construction site or in approved interim storage facilities or **processing in stationary systems**.

Quality assured production of recycled building materials

The processing of the building rubble must be carried out in a stationary or mobile system approved by the authorities. The waste types to be processed ([§ key numbers](#)) must be included in the scope of the permit for the respective system. Contamination with pollutants and impurities, e.g. asbestos, is to be prevented.

Further information on the permissible input materials for the production of recycled building materials [§ see - step 1](#)

Incoming inspection, quality requirements, quality assurance, designation and end of waste for recycled building materials according to RBV

1. [Receiving inspection](#)

Visual inspection of the material to be processed (building rubble) with regard to its suitability for the production of recycled building materials (unmixed, free of contaminants). In particular, the material must undergo an examination for inadmissible mixing and inadmissible waste or contamination in accordance with § 7 RBV (e.g. asbestos, artificial mineral fibres, (H)CFCs, etc.).

This check also includes the documentation made during deconstruction. The record of the investigation of pollutants and impurities, the deconstruction concept and the confirmation of the approval state are used here.

Quality assurance of the material before the treatment process: The evaluation certificate according to Annex 3 RBV has to be available and has to be checked by the producers of recycled building materials for completeness, plausibility and conformity with the delivered waste.

2. [Quality requirements](#)

Environmental compatibility: The production is carried out either according to quality requirements (quality classes, parameters and limits) according to [§ Annex 2 RBV](#).

Constructional requirements: The constructional requirements according to the state-of-the-art for the respective area of application must be observed.

Admixtures of natural rock material may only be used in compliance with the mixing ban ([§ § 15 para. 2 AWG 2002](#)- no change in environmental impact).

3. [Quality assurance](#)

According to the [§ Recycling Building Materials Ordinance \(RBV\)](#) environmental compatibility must be ensured for the production of recycled building materials - this is done by means of quality assurance (QA). QA, in the form of a chemical investigation, is carried out using one of the following three procedures:

- Standard procedures (especially for recycling companies)
- Single batches (up to 500 t) (especially for direct installation)
- QS for certain wastes (special cases of traffic areas, steel mill slag, technical bulk material)

For quality assurance (this includes: Declaration inspection during the standard procedure, quality assurance of single batches and quality assurance for recycled building materials from certain wastes), an **external authorised specialist or specialist institute** must be consulted (see [Annex 3 RBV](#)).

According to [§ 10 para. 4 RBV](#) chemical analyses during the quality assurance with regard to environmental compatibility must be performed by an accredited **conformity assessment body**.

Quality assurance - Standard procedures

Maximum assessment standard: 50 production hours

"The standard procedure for quality assurance of recycled building materials consists of a declaration inspection by an external authorised specialist or specialist institute and a factory production check. Each batch produced shall be separately analysed and examined. The size of a batch to be evaluated may not exceed the quantity of 50 production hours (i.e. usually the production of one week)" (RBV Annex 3)

"For the declaration inspection, the first produced batch (maximum 50 production hours, minimum quantity 200 t) of a recycled building material according to this chapter must be sampled and chemically-analytically examined by an external authorised specialist or specialist institute. The declaration inspection shall be repeated at least once in each subsequent production year for each recycled building material" (RBV Annex 3)

"The environmental compatibility within the scope of the factory production check (by the manufacturer) must be analytically proven for all batches (maximum 50 production hours) which are not examined within the framework of the declaration inspection" (RBV Annex 3)

Quality assurance - Single batch procedures

Maximum assessment standard: 500 t

The respective batch of any size must be examined according to the specifications of ÖNORM S 2127 by an external authorised specialist or specialist institute with a maximum assessment standard of 500 t.

Quality assurance - Procedures for specific waste

Process for recycled building materials from steelworks slags directly from production

"Quality assurance for recycled building materials from steelworks slags directly from production shall be performed as basic characterisation as a waste stream according to [Annex 4 Part 2 Chapter 3 DVO 2008](#) by an external authorised expert or specialised institute, whereby the parameter scope and limit values of Table 4 of Annex 2 apply. All limited parameters in Table 4 of Annex 2 shall be examined and assessed as parameters relevant to the limit value

Process for recycled building materials from bituminous or hydraulically bound surface or base layers from the deconstruction or redevelopment of traffic areas

"Quality assurance for recycled building materials from bituminous or hydraulically bound surface or base layers (e.g. finishing asphalt) from the deconstruction and redevelopment of traffic areas can be carried out by means of sampling through individual samples (e.g. drill cores, milling samples) and their analytical investigation even before the start of the demolition or milling activity (in-situ)" ([Annex 3 RBV](#))

In principle, for each process, the investigation must be carried out by an authorised specialist institute and the parameters of the Recycling Building Materials Ordinance (table from [§ Annex 2 RBV](#)) can be used for classification. The respective use is made according to these quality classes, or prohibitions of use apply.

4. Designation of the quality-assured recycled building materials

The manufactured building materials must be clearly labelled as recycled building materials. The designation must be in accordance with the state of the art and in any case contain the quality class according to the Recycling Building Materials Ordinance, [§ Annex 2 RBV](#).

When the recycled building material is handed over to a third party, the designation, areas of application and prohibitions of use must be stated either on the packaging or, in the case of unpackaged recycled building materials, on a supplementary sheet.

The designation must also appear on the invoice and the delivery note.

In order to be allowed to place a recycled building material for which European technical specifications exist on the market as such, a [CE conformity marking](#) is required under the Styria Construction Products and Market Surveillance Act 2013.

5. Waste end of quality assured recycled building materials

The end of the waste characteristic can only be achieved with a recycled building material of quality class U-A according to [§ Annex 2 RBV](#) with the transfer by its manufacturer to a third party.

For this purpose, the manufacturer of recycled building materials must issue a declaration of conformity for each recycled building material for which the end of waste characteristics according to [§ 14 Para. 1 RBV](#) is to be reached, regarding the implementation of the quality assurance according to [§ 10 RBV](#) and the compliance with the limit values of quality class U-A. This declaration can be made together with the declaration of performance according to the EU Construction Products Regulation.

For recycled building materials of all other quality classes, as before the publication of the Recycling Building Materials Ordinance, an end to the waste characteristic can only be achieved through the permitted use. Inadmissible use leads to the obligation to pay contributions according to ALSAG.

Note: Since CE marking does not allow any conclusion to be drawn as to whether the product has been checked by independent bodies for compliance with the directives, it is not a sufficient criterion for exemption from contributions under ALSAG. In order to be able to use recycled building materials on construction sites free of charge in accordance with the Contaminated Sites Remediation Act (ALSAG), in addition to the permitted use within the framework of a quality assurance system, the consistent environmental quality of the processed materials must also be guaranteed by continuous investigation.

Incoming inspection, quality requirements, quality assurance, designation and end of waste for recycled building materials according to [BAWP 2017](#)

1. Receiving inspection

Visual check of the material to be processed with regard to its suitability for the production of recycled building materials (free of contaminants). This check also includes a plausibility check of any existing basic characterisation according to BAWP 2017 of the delivered material.

2. Quality requirements

Environmental compatibility: The production is carried out according to the quality requirements (quality classes, parameters and limits) of chapters 7.8.2 and 7.8.6 of BAWP 2017.

Requirements for starting materials: Only uncontaminated excavated soil or the uncontaminated soil components obtained from it may be used for the production of recycled building materials of quality classes A1 and A2-G. For the production of recycled building materials of quality A1, the starting material must also comply with the limit values for the TOC total and the TOC in the eluate of quality class A2.

Constructional requirements: The constructional requirements according to the state-of-the-art for the respective area of application must be observed.

An admixture of less than 50 % of mineral building rubble or primary raw materials is permitted under the conditions of Chapter 7.8.2, BAWP 2017.

3. Quality assurance

According to BAWP 2017, the production of recycled building materials must be environmentally compatible.

Possibilities for quality assurance

1. Quality assurance of the material before production of recycled building materials according to chapter 7.8.3 or 7.8.5 BAWP 2017
=> Quality class of starting material = Quality class of finished recycled building material.

Prerequisites: Concentration of pollutants in partial fractions is not to be expected, no admixture of materials.

2. Quality assurance on the finished recycled building material according to Chapter 7.8.5 BAWP 2017 or alternatively according to Annex 3, RBV (Standard Quality Assurance Procedures) with the parameter scope from Chapter 7.8.6 of BAWP 2017 (see also [☞Quality assurance - Standard procedures](#))

4. Designation of the quality-assured recycled building materials

The manufactured building materials must be clearly labelled as recycled building materials. The recycled building material shall be labelled accordingly and shall also contain the quality class according to Chapter 7.8.2 BAWP 2017 (A1, A2, A2-G, BA or IN).

When the recycled building material is handed over to third parties, the designation, areas of use and prohibitions on use must be stated either on the packaging or, with unpackaged recycled building materials, on a supplementary sheet (see Table 79, Chapter 7.8.2, BAWP 2017).

The designation must also appear on the invoice and the delivery note.

In order to be allowed to place a recycled building material for which European technical specifications exist on the market as such, a CE conformity marking is required under the Styria Construction Products and Market Surveillance Act 2013.

5. Waste end of quality assured recycled building materials

The end of waste of recycled building materials produced according to the specifications of BAWP 2017 can only be achieved through permitted usage (see Table 79, Chapter 7.8.2, BAWP 2017). Inadmissible use leads to the obligation to pay contributions according to ALSAG.

Note: Since CE marking does not allow any conclusion to be drawn as to whether the product has been checked by independent bodies for compliance with the directives, it is not a sufficient criterion for exemption from contributions under ALSAG. In order to be able to use recycled building materials on construction sites free of charge in accordance with the Contaminated Sites Remediation Act (ALSAG), in addition to the permitted use within the framework of a quality assurance system, the consistent environmental quality of the processed materials must also be guaranteed by continuous investigation.

Step 4: Recording waste / EDM

Recording obligations according to § 17 AWG 2002

Recyclers or landfill operators who legally dispose of waste (waste owners) are waste handlers and are therefore subject to the obligation to keep records in accordance with [§ 17 para. 1 AWG 2002](#).

Landfill operators must also keep additional records in accordance with [§ 17 para. 3 AWG 2002](#). Furthermore, the provisions of the [Landfill Ordinance 2008](#) is to be observed.

Registration and reporting obligations for waste collectors and waste handlers who are obliged to keep records

Waste collectors and waste handlers must be registered with [§ 22 AWG 2002](#) in the [Electronic register for systems and personal master data](#) (eRAS). And according to [§ 4 AbfallbilanzV](#) in conjunction with [Annex 1 AbfallbilanzV](#) enter their master data.

In addition, waste collectors and waste handlers must, in accordance with [§ 5 AbfallbilanzV](#) in conjunction with [Annex 2 AbfallbilanzV](#) **keep continuous electronic records of the type, quantity, origin and whereabouts of waste**, and thus also of building rubble, for each calendar year.

Waste collectors and waste handlers must report an **annual waste balance**, summarised in a single XML file, to the Governor of the Province **by 15 March each year at the latest**, covering the previous calendar year.

- Presentation for the [Waste Balance Ordinance](#)
- Video instructions for the [Transmission of the annual waste balance declaration](#)
- Information about registration for the [Electronic data management of the BMK](#)
- ONLINE registration application under www.edm.gv.at

Producers of recycled building materials also have recording and reporting obligations in accordance with the Recycling Building Materials Ordinance, [Annex 5 RBV](#)

A) Before the first handover of recycled building materials of quality class U-A. The producer must declare to the BMK that they are a "producer of recycled building materials" and submit a binding declaration of compliance with the mixing ban in accordance with [§ 15 para. 2 AWG 2002](#) ...to be delivered.

B) Registration of new installations in the EDM and labelling with the appropriate annex attributes (e.g. BE-ABII):

- Storage for manufactured recycled building materials of U-A quality class,
- Storage for other manufactured recycled building materials and

C) For mobile treatment facilities, two additional storage facilities (U-A, other RBs) shall be recorded and identified at the site with the registered office address (BE-ABII).

[Recycling Building Materials Ordinance - Annex 5](#)

[Recycling Building Materials Ordinance and EDM - Registration, Recording and Reporting](#)
(Presentation by Dr. Michael Pollak on behalf of the BMLFUW on 11 November 2015)

Step 5: Landfill of non-recyclable waste

Building rubble landfills in Styria

Non-recyclable building rubble and mineral processing residues from the recycling plants (e.g. particulate matter) must be deposited in a landfill approved for this purpose. For the disposal of this waste, the relevant provisions of the Landfill Ordinance 2008 must be applied (see [§ Step 2 - Acceptance of building rubble at a landfill](#)).

5.1 Landfilling of soil contaminated with invasive neophytes

The contaminated soil should be deposited in a targeted manner and (depending on the plant species) sufficiently covered. Follow-up checks are necessary. By cleaning vehicles and machines, the carry-over of neophytes should be avoided.

Step 6: Determine, register and pay ALSAG contribution

Responsibility for the ALSAG contribution lies with the customs authority

The [§ Contaminated site contribution according to the Contaminated Sites Remediation Act](#) is an purpose-designated fee collected for the disposal, backfilling or shipment of certain types of waste. For the examination and collection of the contaminated site contribution the [§ Customs authority](#) is responsible.

Contaminated site contribution obligation

- Landfill of waste
- Backfilling of uneven terrain or making adjustments to the terrain with building debris and (soil) excavated material or building rubble
- Shipments of waste for the purpose of landfilling or backfilling (e.g. with building debris or building rubble outside the Federal territory)
- Storage of waste for more than one year for disposal or more than three years for recycling

Details of the obligation to pay contaminated site contribution: [§ 3 Contaminated Sites Remediation Act](#)

Contaminated site contributions do not apply if building rubble and (soil) excavated material is sent for permissible recycling or permissible reuse - see [§ Types of waste!](#)

Contribution debtors are

- the landfill operator or
- for shipment outside the Federal territory, the person who is obliged to notify, or
- the initiator (building owner) of an activity that is subject to contributions (building owner or building contractor). If this cannot be determined, the contribution debtor is the person who tolerates the activity (e.g. landowner, farmer)

Details of contribution debtors: [§ 4 Contaminated Sites Remediation Act](#)

The contribution debtor must keep records, separated according to the basis of the contributions (**seven years obligation to keep records**).

Contaminated site contribution per tonne or part thereof (Status: 10/2020, [§ 6 ALSAG](#))

Mineral building rubble (see Annex 2 DVO 2008)	€ 9.20
Excavated material (if not free of charge)	€ 9.20
other mineral wastes (see Annex 1, Tables 5 and 6 of DVO 2008)	€ 9.20
other waste	€ 87.00

If waste is landfilled, the (sub)class of landfill decides the amount of the contribution:

Excavated soil landfill	€ 9.20
Landfill of inert waste	€ 9.20
Building rubble landfill	€ 9.20
Other waste - landfill for residual materials	€ 20.60
Bulk waste landfill or hazardous waste landfill	€ 29.80

When to pay

The contaminated site contribution is a self-assessment levy. The self-calculated contribution must in any case be declared and paid to the customs office of the place of business after the end of the calendar quarter in which the activity took place (by the 15th of the second following month at the latest).

Normally for landfill - contaminated site contribution included

As a matter of principle, building rubble is to be recycled. If this is not possible, the waste is usually disposed of by a waste disposal company on behalf of the construction company or the building owner or the waste is disposed of in a landfill. In this case, the landfill operator will generally include the contaminated site contribution in the landfill price (or the disposer in the disposal price). In many cases, the contaminated site contribution is shown separately. Due to the possibly changing contribution rates and basis, it is recommended to pay attention to the reported contaminated site contribution.

The information transfer is always in electronic form

- **Information** for all commercial operators, companies, tax consultants and private individuals can be found at the Contaminated Sites Contribution Information System Customs under the topic [Contaminated sites contribution](#).
- **Online registration for contributions** under www.bmf.gv.at > **Financial Online**
- **Written contribution registration** with the form "Alb 4" "[Contaminated site contribution notification](#)". This form is currently available from [Form database](#) >> Selection > Alb 4 (enter).

Hazardous and non-hazardous types of waste are classified according to [Waste List Ordinance](#) by **key number**, waste description and, if necessary, including a specification (Note: Annex 1 of the amendment BGBl. II No. 409 / 2020 comes into force in January 2022). The [current, consolidated list of waste](#) can be obtained from the EDM portal.

Types of waste

The Waste Management Act ([§ 2 para. 1 AWG 2002](#)) provides for two waste terms:

1. Subjective waste term: The owner wants to dispose of it or has disposed of it.

2. Objective waste term: Separate treatment is in the public interest because negative effects on the environment are to be expected (e.g: backfillings in the water conservation area).

Excavated material, excavated soil and building rubble are waste. **Exemption** under [§ 3 para. 1 line 8 AWG 2002](#): Non-contaminated excavated soil used in situ, in its natural condition, for construction purposes.

Type of waste	Description
Excavated material	Is an umbrella term and includes any material produced by excavation or removal.
Building rubble	Is the umbrella term for all waste from construction activities, which is produced during demolition or renovation work
Municipal waste (not construction and demolition waste!)	Waste from private households and other waste similar in nature or composition to waste from private households.
Plastic waste	Without packaging, such as plastic profiles, plastic pipes, foam and insulation boards etc.
Wood waste	Treated or untreated
Metal waste	Iron and steel wastes, non-ferrous metal scrap / non-ferrous metal packaging, other wastes from group 35 of the list of wastes
Glass waste	Flat Glass
Asbestos waste	Asbestos / asbestos dust, asbestos cement, asbestos cement dust

Excavation can be

Types of waste	Description
Topsoil	Is part of the total soil organic matter
Excavated soil	<p>Material obtained by excavating or clearing away naturally occurring soil or subsoil</p> <p>The proportion of non-soil mineral components, e.g. mineral building rubble, must not exceed 5 % by volume</p> <p>Percentage of non-soil organic components, e.g. plastics, wood, etc. must not exceed 1 % by volume</p>
Uncontaminated excavated soil	Excavated soil for which no relevant contamination or contaminants are apparent and based on existing preliminary information
Soil components	<p>Are components of soil or subsoil that have been created either by excavating or clearing away non-naturally occurring soil or subsoil or by the treatment (e.g. screening) of excavated material:</p> <p>The proportion of non-soil mineral components, e.g. mineral building rubble, must not exceed 5 % by volume</p> <p>Percentage of non-soil organic components, e.g. plastics, wood, etc. must not exceed 1 % by volume</p>
Uncontaminated soil components	Fractions of uncontaminated excavated soil (e.g. after screening)
Technical bulk material	Is non-hazardous excavated material from constructional layers such as rolled surfaces, frost cases, drainage layer, etc.
Track excavation material	<p>Occurs at track construction sites:</p> <p>Track ballast material: Track ballast incl. abrasive and fine material with undefined grain size</p> <p>Foundation course material: layer made of technical bulk material</p> <p>Subsoil material: naturally occurring existing soil or excavated material below the subplanum</p>

Step 7: Neophyte Management

Measures against invasive neophytes

The [EU regulation \(EU\) No. 1143 / 2014](#) "On the prevention and management of the introduction and spread of invasive alien species" provides the legal basis for combating invasive alien species.

According to the currently valid Union list, the occurrence of 10 invasive species in Austria has been confirmed.

In Styria, seven (five terrestrial and two aquatic) invasive neophytes are established and to be combated: Glandular balsam, common silk plant, tree of heaven, Japanese hops, giant hogweed (terrestrial), as well as the salvinia and the various-leaved water milfoil (aquatic). For all other invasive species that also cause problems (e.g. knotgrass species), combating is voluntary.

Basic information, the description of the individual neophytes as well as the key points of proper combating can be found, for example, at neobiota.styria.at/.

Further information:

- [Division 13, Nature and General Environmental Protection Unit](#)
Contact partner: Dr. Andrea Krapf
- [Division 14, Waste Management and Resource Management Unit](#)
Contact partner: Dr. Ingrid Winter
- [Alien species Austria](#)



www.abfallwirtschaft.steiermark.at

