

City of Västerås

Ecological Sustainability

Guidelines

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SUSTAINABLE WATERS

NonHazCity 3



NonHazCity

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1 Introduction

Meeting today's challenges of climate change and environmental impacts requires us to think innovatively and responsibly when it comes to the design, construction and management of our buildings.

The purpose of this Guideline Ecological Sustainability is to provide consultants and contractors with clear and detailed guidelines for achieving the City of Västerås' adopted environmental goals as a minimum in construction projects.

This guideline provides concrete tools and methods for achieving the specific criteria for the Swedish Green Building Council's Silver criteria. The goal is to guide designers, contractors and property owners through the whole process and exceeding these standards, thus contributing to a more sustainable building sector.

This document is divided into chapters that deal with the various requirements for achieving adopted environmental and sustainability requirements in the City of Västerås' projects.

In the case of renovation projects, certification according to the Swedish Green Building Council must not take place. However, the projects must still comply with the directives in Chapter 2 Miljöbyggnad as far as possible. In all other aspects, these instructions shall apply.

At an early stage of the project, the contractor/consultant must establish contact with the environmental controller at the Technical Services and Property Management Department for project-specific design.

In projects, the contractor shall engage a climate coordinator to monitor the climate targets throughout the project from an early stage to approved final inspection.

The City of Västerås' environmental objectives

The City of Västerås has integrated environmental goals linked to properties in several areas to promote sustainability and reduce climate impact. The following is a summary of these objectives:

Climate impact and energy use

- **Fossil-free municipal organisation by 2030:** The city strives for its own operations, including properties, to be fossil-free by 2030. This means that energy use in municipal buildings must be free of fossil fuels.
- **Net zero greenhouse gas emissions by 2040:** Västerås aims to achieve net zero greenhouse gas emissions per capita by 2040. To

achieve this, emissions will be reduced by 10% per year, in line with the Paris Agreement's ambition to limit global warming to 1.5°C. Up to 10% of emissions may be offset by various measures.

Sustainable urban development and construction

- **Environmentally adapted planning:** The city aims to integrate environmental considerations into all community planning and construction to create a sustainable and pleasant urban environment. This includes taking energy performance, material selection and life cycle perspectives into account in new construction and renovation of properties.
- **Climate adaptation:** Through climate adaptation action plans, Västerås strives to ensure that existing and new properties are resilient to climate change, such as increased precipitation and higher temperatures.

Non-toxic environment

- **Minimisation of harmful substances:** The goal is to minimize the presence of harmful substances in the city's environment to protect both human health and ecosystems. This means that when building and maintaining properties, materials and methods must be chosen that do not contribute to the spread of hazardous substances. These goals are part of the City of Västerås' overall strategy to ensure sustainable development in the real estate sector and contribute to the city's long-term environmental ambitions.

The City of Västerås' action plan for the natural and cultural environment

- Västerås will work to develop and manage natural and cultural values. This is done in urban environments, wetlands, lakes and forests. In addition, it is of great importance to ensure that all types of invasive species are prevented. Thus, work to achieve these goals must be handled early in all new construction and renovation projects and worked actively on.

This guideline

is a supplement to the City of Västerås' adopted and governing documents regarding the environment, health and climate.

These documents are available on vasteras.se

2 Miljöbyggnad

All new production within the City of Västerås must, according to a political decision, be carried out and certified according to Miljöbyggnad Silver. It is always the latest released version of Miljöbyggnad Silver that the project must be registered to, regardless of whether there is a transition period between the older and new version. Deviations from this may only be made after reconciliation with the environmental building coordinator at the City of Västerås.

The client's project manager is responsible for registering the project with the Sweden Green Building Council.

The contractor is responsible for the production and compilation of all documentation, application for preliminary certification. A certification plan must be presented to the client before construction starts.

The client pays for the certification fee.

The client assists with documentation that is the property owner's responsibility to produce, such as radon measurements, energy invoices, energy statistics, etc.

Documents related to the certification work for Miljöbyggnad Silver, Sweden Green Building Council, must be kept updated on an ongoing basis and be available to the client. Templates from SGBC are used to the extent that they exist.

When the Client's requirements are higher than the requirements of the Swedish Green Building Council's silver requirements, the Client's requirements apply.

The contractor is responsible for ensuring that the project receives all the properties for approved certification according to Miljöbyggnad Silver two years after the final inspection. In the event that the project does not receive approved certification upon application by the client, the contractor shall, in consultation with the client, promptly rectify the deficiencies in order to achieve approved certification.

PVC materials should be avoided as much as possible. For goods and materials containing PVC, a well-justified deviation in BVB must be made and this must be approved by the customer before installation can be carried out.

Indicators with a fixed level of requirements

As the City of Västerås' adopted climate and environmental goals are higher than Miljöbyggnad Silver the following indicators have a fixed level of requirements:

- Indicator 3 Energy use shall reach level Gold in projects equipped with solar cells, or
- Indicator 3 Energy use shall reach level Silver in projects that **are not** equipped with solar cells.
- Indicator 4 Climate impact shall reach level Silver as a minimum. See more under *chapter 4 Minimizing climate impact*.
- Indicator 9 Phase-out of hazardous substances shall reach level Gold. See more under *Chapter 3 Byggvarubedömningen*.
- Indicator 12 Flexibility and Demountability shall achieve level Gold. See more under *chapter 6 Flexibility*
- Indicator 13 Circular material flows will reach Gold level. See more under *chapter 7 Reuse and circularity*.
- Indicator 15 Logging of Building Products shall reach level Gold. See more under *Chapter 3 Byggvarubedömningen*.

3 Byggvarubedömningen

To ensure that only environmentally friendly and health-safe materials are used in the project, it is mandatory to log all building products in Byggvarubedömningen (BVB). BVB is an established system that evaluates, and rates construction products based on their environmental and health impact. By using BVB, the contractor can make informed choices about which products to use, with a focus on minimizing negative impact on both the environment and human health.

BVB is to be used during both the design phase and the production phase.

Requirements for logging products in BVB

To ensure that the property has very low levels of built-in chemicals when handed over to new operations, it is important that good product choices are made throughout the project. One way to steer this work is to achieve certain goals.

These goals are:

- Products rated "Recommended" shall reach a minimum of 20% of all logged products
- Products rated "Avoided" must not exceed 5% of all logged products
- Products in all BSAB codes must be logged in BVB
- All products should be logged in weight and approximate location. See headline Logging of product by weight and approximate location.
- Products in commercial kitchens are logged as much as possible. Products that are not assessed in the Byggvarubedömningen must also be logged.
- Products for outdoor environments such as play equipment, canopies and hardened surfaces should primarily be chosen based on the fact that they are assessed in BVB and are assessed Recommended or Accepted. In the event that products for the outdoor environment are not assessed in the BVB, they must be logged anyway.
- All reused products must be logged in number and location and marked with a "tag" according to the instructions below and, if necessary, a manual from BVB.

Products that do not need to be logged in Byggvarubedömningen:

- Fill material
- Screws, nails, nuts, sheet metal straps, perforated bands, plastic strips, lock cases or equivalent unless there are special environmental risks
- Consumables such as marking spray, fuel, etc

The logbook's structure and working methods

Prior to the start of the project, **two** logbooks are created for the project: one for the Design phase and one for the Production phase. The reason for two different logbooks is to ensure that all statistics on the number of logged products, the number of % Recommended, Accepted and Avoided, etc. are correct for each phase.

It is of great importance to ensure that the right materials are chosen already in the design phase in order to achieve set goals and requirements as a minimum.

In the design phase, the products do not need to be specified in quantity (weight) or approximate location.

In these two logbooks, folders are created for all the included product groups according to the BSAB system:

Name	Leverantör	Tillaggs	Disciplin	Innehåll	Ursprung	Trasor	Arkiv	Ägare
01		Daniel Andersson	N-Energ och mjöl					...
02		Daniel Andersson	N-Energ och mjöl					...
03		Daniel Andersson	N-Energ och mjöl					...
04		Daniel Andersson	N-Energ och mjöl					...
05		Daniel Andersson	N-Energ och mjöl					...
06		Daniel Andersson	N-Energ och mjöl					...
07		Daniel Andersson	N-Energ och mjöl					...
08		Daniel Andersson	N-Energ och mjöl					...
09		Daniel Andersson	N-Energ och mjöl					...
10		Daniel Andersson	N-Energ och mjöl					...
11		Daniel Andersson	N-Energ och mjöl					...
12		Daniel Andersson	N-Energ och mjöl					...
13		Daniel Andersson	N-Energ och mjöl					...
14		Daniel Andersson	N-Energ och mjöl					...
15		Daniel Andersson	N-Energ och mjöl					...
16		Daniel Andersson	N-Energ och mjöl					...
17		Daniel Andersson	N-Energ och mjöl					...

Figure: Product groups according to BSAB

All products logged in the design phase and decided to be used in the production phase can be copied over to the logbook for production according to the manual from BVB.

Logging of product by weight and approximate location

The purpose of logging all products by weight and approximate location is to obtain measurable figures of embedded chemicals, with a focus on risk reduction and phase-out substances, in unit weight per built square meter. In addition, for future demolition, gain good knowledge of the locations of chemicals and ensure proper disposal.

This procedure is very important to achieve the City of Västerås' goal of reducing the use of hazardous chemicals.

Lägg till i Loggbok ✕

i Loggboken har restriktioner
Regler för denna Loggbok är att du behöver fylla i vart produkten är placerad. Du behöver även fylla i mängd och enhet för att lägga in produkten i Loggboken.

^ Ytterväggsp profiler av galvaniserat stål med pålimmad duk

Regler för denna Loggbok är att du behöver fylla i minst en textruta på var produkten är placerad. Du behöver även fylla i båda mängd och enhet för att lägga in produkten i Loggboken. Ta bort

Byggnad Våning Rum/Byggnadsdel

Placering/övrig info Mängd* Enhet*

+ Lägg till rad

Föregående Nästa

Figure: Dialog box for logging specified in weight and position.

In the dialog box, you do not need to specify the exact weight and location, but in close quantities as suggested below:

Product	Amount	Placement
Washbasin	130 kg	WC and RWC
Wet room carpet	3200 kg	Wet rooms
Spiro duct	120 kg	Above suspended ceiling
Sewer pipes	470 kg	In the intermediate floor and under the bottom slab
Lamps	75 kg	Classroom
Stone slabs	4600 kg	Outside entrances.

Table: Example of accuracy in the registration of weight and placement of product.

It is up to each part registering products to ensure that it is stated in weight (kg) as above and not in any other units!

Deviations

In order to use any product with an assessment "Avoided", a deviation in BVB must be made, which the client must approve the use, of well in advance of installation.

The dialog box below should always be filled in with a well-justified reason why the product is proposed, even if it does not meet the requirements of "Recommended" or "Accepted" and what measures have been taken to ensure that there are no other alternatives that have a rating of "Recommended" or "Accepted".

Figure: Deviation management in BVB

Please note that if a product assessed as "Avoided" has been assembled and has not received an approved deviation to be used by the responsible project manager before installation, the product must be replaced with one that is assessed as "Recommended" or "Accepted" at no extra cost to the client.

Discrepancies for products that are not logged and rated in the BVB (see chapter below) should be handled in the same way as for products rated as "Avoided".

The proposed product is not registered and assessed in Byggvarubedömningen

If the product proposed by the contractor or consultant is not logged and assessed in the BVB, the following order of priority must be followed:

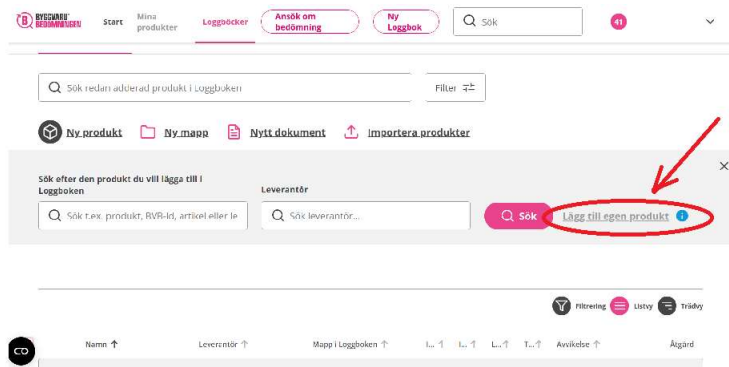
1. The supplier of the proposed product is asked to immediately order an assessment from BVB.
2. If the first choice is not possible, an equivalent product must be chosen from among products that have already been assessed in the BVB. Note the requirement for a percentage of "Recommended".
3. If option 1 or option 2 is not possible, the unassessed product must be logged in BVB according to procedures and the deviation must be approved by B well in advance of installation.

Register reused products

All reused products used in the project **must** be logged in BVB, both in quantity (weight) and approximate location.

Reused products that are already included in BVB's database are registered in the usual way but are marked with a tag "Reuse". See info below.

Products that are not in BVB's database are logged using "Add own product":



Fill in the required boxes (marked with red asterix).

Name: Start with the word "Reused..." and then fill in the item in question. Motivation: "Reuse" Investigated alternatives: "Reuse"

In the boxes for placement, quantity (weight), folders, etc. according to routines for already registered products.

Lägg till produkt ✕

Namn * i

Beskrivning i

Motivering * i

Undersökta alternativ * i

Typ av produkt *

Vara

Kemisk produkt

Add supplier (brand) if known. If unknown, click in "Supplier unknown" as shown:

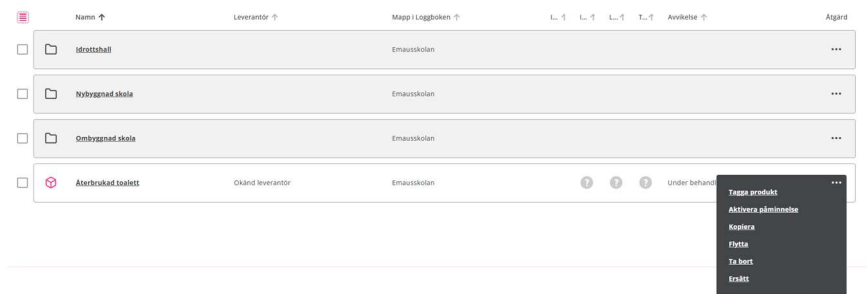
Lägg till produkt ✕

Leverantör * i

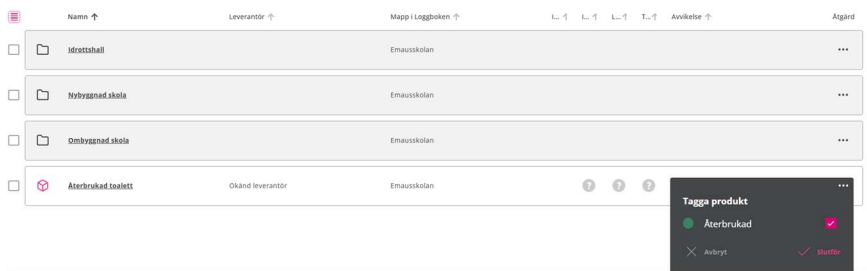
Hitta leverantör Lägg till leverantör Leverantör okänd

Produkten finns i andra system i

Once the product is registered, go to the first page of the current folder. Click on the three dots next to the registered product and then press "Tag product":



Click in the red box and then click "Finish":



When products must be logged and approved at the latest

In the design phase, the products must be logged at the latest when all included documents are stamped "Construction document".

In the production phase, the products must be logged well in advance of assembly. Any deviations must be handled according to instructions under the heading Deviations.

Compilation of the unit weight of chemicals per built square meter

At the latest for the final inspection, a summary from the BVB logbook must be produced with how much chemicals are built in via construction products, reported per built square meter. TE contacts B's environmental controller at an early stage prior to this report.

Revision

Audits regarding the choice of products, logging including quantity and placement can be performed in the project. Audits can be carried out on both the client's and the contractor's initiative. In the event of major deficiencies, it is the contractor's responsibility to promptly make all necessary corrections at his own expense.

4 Minimize climate impact

In order to achieve the goals set by the City of Västerås to reduce climate impact, there must be active work in each project in which everyone involved contributes.

Climate work in the design and production phase

Throughout the project, forecasts for carbon dioxide emissions will be produced on an ongoing basis, expressed as kg CO₂e per square meter GFA. This is a requirement to actively control and reduce the project's climate impact. The forecasts must include emissions from both construction, transport and choice of materials, and must be presented at the project's important decision points. The aim is to identify the largest sources of emissions at an early stage and enable proactive measures. The project's Co₂e/BTA must not exceed level silver for Indicator 4 Climate Impact, Miljöbyggnad at the time of final inspection.

Vehicles and machines

Vehicles and machinery used in the contract must comply with the following:

Passenger cars and transport vehicles:

- At least Euro 6 emission class.
- Primarily electric vehicles will be used.
- Secondly, vehicles shall be powered by renewable fuels, such as HVO100 or other renewable fuels.

Heavy vehicles and machinery

- Minimum Euro VI emission class for heavy-duty vehicles
- Machinery must meet at least Stage IV/Tier 4 (or equivalent emission requirements).
- Electrically powered machines must be used where technically possible.
- Other machines will primarily be powered by HVO100 or other renewable fuels.

Reporting

- The contractor must submit an environmental plan describing how vehicles and machinery will contribute to reduced emissions no later than two weeks after the start of construction.
- A summary of the total estimated CO₂e emissions from vehicles and machinery must be submitted every three months during the construction period, as well as in the final report.

Transport optimisation

- Transports to and from the workplace must be coordinated as far as possible to reduce the number of trips.
- The use of logistics solutions such as consolidated shipments, fixed delivery slots and establishment plans must be described in the environmental plan.

Reporting

The contractor must report all applicable transport vehicles as above in *Appendix 1 Follow-up of emissions from work vehicles*.

5 Other Material Requirements

Local building products

Building materials should primarily be chosen from local or regional producers to reduce transport emissions.

Suppliers must be able to report origin and production methods.

If local alternatives are not available, documented actions to search for local alternatives must be presented.

Concrete

Climate-improved concrete with reduced cement content will be used to minimize carbon dioxide emissions.

Concrete will primarily be produced within a radius of 150 km from the construction site.

Steel

Steel structures and reinforcement should primarily consist of recycled or certified sustainable steel, so-called green steel. In cases where this is not possible for e.g. financial reasons, this must be approved by the environmental controller before a decision is made in the project.

Production and processing of steel shall, if possible, take place within the Nordic countries or the EU to ensure high environmental requirements.

Suppliers of steel products must be able to present Environmental Product Declarations (EPDs) and reporting of climate impact.

Insulation materials

Insulation must have a low climate impact and be free of substances that are harmful to the environment and health.

In each project, the possibility of using bio-based or recycled insulation materials shall be investigated.

Cellular plastic should be avoided as far as possible.

Insulation products must be manufactured in the EU and meet the Swedish Green Building Council's Silver or equivalent requirements.

Wood

Wood and wood-based materials that are built in must come from sustainable forestry according to the following order of priority:

1. Wood that is certified according to PEFC
2. Wood that is certified according to FSC
3. Wood products with other documentation confirming that they come from sustainable forestry.
4. If wood raw material with documented sustainable origin has not been available, measures taken to ensure sustainable raw material must be documented.

This requirement applies to built-in products containing more than 2% wood raw material.

To prove that the requirement is met, documentation must be reported, such as PEFC documentation, FSC certificates or other verification. Compliance can also be demonstrated by the product meeting BVB's criterion for sustainable wood raw material with a rating of "Recommended" (primarily) or "Accepted".

Natural stone

Origin and transport

Natural stone used in construction projects should primarily be quarried and processed within the local region to minimise transport-related emissions.

If stone from abroad is used, it must be justified on technical or aesthetic grounds, and the climate impact of transport must be compensated or minimised through efficient logistics solutions.

Working conditions and social responsibility

The natural stone must come from suppliers who ensure fair working conditions in accordance with international conventions, such as the ILO's core conventions and the UN Guiding Principles on Business and Human Rights.

Quarries and processing plants must be able to verify that they comply with good working conditions without child or forced labour and with fair wages.

Environment and resource management

The natural stone must come from suppliers who engage in responsible resource extraction, with minimal impact on ecosystems and water resources.

The use of chemicals in the processing and treatment of the stone must be carried out in accordance with best environmental practice and documented.

Documentation and traceability

The supplier must be able to present documentation that proves the stone's origin, transport route and compliance with working conditions and environmental requirements.

Certifications or third-party audits of the supplier are meritorious but not a requirement.

6 Flexibility

Buildings must be planned and implemented with the future in mind. To meet changing needs over time and at the same time reduce climate impact, solutions are required that enable both adaptation and dismantling without unnecessary material waste. The aim is to extend the building's life cycle, limit resource use and reduce the generation of waste during renovations or demolition.

Flexibility

Flexibility means that the building should be able to be changed with minimal intervention. This means that both floor plans, technical systems and load-bearing structures should enable:

Changeable use – the building should always be designed to be able to change function over time, e.g. from offices to homes or other activities, without extensive renovations. At a very early stage of the project, the client shall internally investigate whether the building should be designed and produced for a certain alternative future purpose. After that, the project must ensure that the intended building can be converted to other activities with simple means.

Scalability and adaptability – spaces should be expandable, reduced or merged. This can be achieved through flexible wall systems or frame solutions that allow for open floor plans. Buildings must always be planned and designed with this as a starting point.

Future-proof technical installations – technical systems for electrical, plumbing and ventilation should be designed so that they can be easily expanded or adjusted without affecting the frame to a greater extent.

Dismantlability

Dismantlability means that building parts, materials and components shall be able to be dismantled with as little environmental impact as possible, and be possible to reuse or recycle.

Reversible assembly methods – the use of bolted joints, plugs and other non-permanent solutions that allow building components to be taken down intact and undamaged.

Choice of materials for reuse – Material selection for reuse – choose materials that can be easily separated. For example, avoid board materials with glued surface layers or multi-layer solutions where the layers cannot be separated.

Access to documentation – information about the construction of building components, fasteners, types of materials and dismantling instructions should be available for future users. Digital logbook or product database can be used.

Implementation and follow-up

To achieve real flexibility and dismantlability, the ambitions must be put into practice right from the design stage. These principles must be integrated into design, construction and installation documents. During production, continuous monitoring should take place to ensure that the solutions are implemented as intended. Deviations must be documented and rectified in consultation between the contractor and the client.

7 Reuse and circularity

It is of great importance for the City of Västerås to constantly work with reuse and circular construction to reduce the extraction of finite resources and carbon dioxide emissions. The City of Västerås thus has higher requirements than level gold on indicator 13 Reuse and Circularity.

Reuse should be seen as an ongoing strategy to reduce waste and the use of finite resources. The following order of procedure shall always be followed:

1. Existing building products in connection with, for example, renovations and extensions shall always be preserved to the greatest extent possible.
2. Reused building products are purchased and integrated into the project.
3. When purchasing new building products, those produced with recycled materials should always be chosen in the first place
4. All surplus building materials must always be disposed of and made available for a second market.

In every project, the following should always apply:

- Materials with high recycling potential and that are easy to dismantle and separate at the end of the building's life should be chosen
- Reused and recycled materials are chosen where possible
- The building is designed for future dismantling and recycling by avoiding complex material mixes and irreversible construction methods.
- Reused and recycled materials are purchased and assembled, even if new materials are prescribed in construction documents.

- Waste minimisation strategies will be implemented during the construction process that describe how reused and recycled materials will be used throughout the construction project.
- Strategies early in the design phase are developed for how materials will be handled at the end of the building's life length. Based on this, the design and choice of materials shall be chosen.
- All staff, should have a good understanding of and be well versed in and follow all guidelines regarding reuse, recycling and waste minimisation strategies.
- All reused products used/installed in the building must be logged in BVB. *See Chapter 3 Building Products Assessment.*
- Excavated materials must be reused as far as possible within the work area. If this is not possible, other actors must be offered leftover masses before removal takes place.
- Gravel, stone, etc. used for temporary surfaces within the contract area must never be sent to a dump or landfill without first being offered to another party.

Throughout the project, regular follow-ups must be carried out to ensure that all requirements are complied with. In addition, there must be a developed process for constantly working on improvement measures. All reused must be registered in the appendices or technical systems provided by the client no later than the time of final inspection.

8 Biodiversity

Working with biodiversity in construction within municipal operations is of great importance for preserving and strengthening ecosystem functions and services. Biodiversity helps to create more resilient environments that can cope with climate change, disease outbreaks and other ecological challenges. By integrating biodiversity into construction projects, we promote sustainable development that benefits both nature and society. It also contributes to increased quality of life for residents by creating green and attractive environments.

In the work to promote biodiversity, there are certain elements to consider.

- Preserve existing nature and habitats on the site that is being used.
- Facilitate ecosystem services. This can be done through well-considered types of services such as:
 - Supporting ecosystem services provide basic conditions for other ecosystem services to function, such as space for ecosystems and habitats, photosynthesis, soil formation and biogeochemical cycles.
 - Supplying ecosystem services provide us with raw materials for the production of, for example, food, drinking water, fibre raw materials and bioenergy.
 - Regulating ecosystem services provide us with a stable and healthy natural environment, for example through purification of air, soil and water as well as pollination. The regulating

ecosystem services also smooth out the effects of disturbances and extreme weather through, for example, water regulation, carbon sequestration and noise reduction.

- Cultural ecosystem services provide us with a wealth of experiences and quality of life in the form of outdoor life, recreation and experiences of natural and cultural heritage.
- Prevent the spread of invasive species. By:
 - Inventory and risk assessment of the area to identify invasive species.
 - Ensure that staff and stakeholders are trained on the matter.
 - Plan and act quickly and effectively if there are invasive species
 - Prevention by safe handling of plant material and soil masses to avoid spreading.
- Promote diversity and species richness. By:
 - Planting plants and create green spaces that support the diversity of species and contribute to natural habitats and breeding grounds.
 - Create ecological corridors to facilitate movement and the dispersal of native species.
 - Sustainable plant choices with a focus on plants that support local animal species. Pollinator-friendly plants.
- Ensure that lighting does not adversely affect the wildlife on site.

9 Conservation and replanting of trees and other vegetation

In any new construction or renovation, it is of the utmost importance to preserve existing trees as much as possible, as a fully grown tree has an immediate effect on the environment. It is at least as important to supplement with new planting of trees, which contribute to creating sustainable and healthy environments for the future.

Trees create sustainable habitats for people and wildlife and contribute strongly to well-being, shade, stormwater management and as a natural carbon sink.

Preservation of existing trees

At an early stage of the design, all mature trees and larger shrubbery must be identified. Particular emphasis will be placed on valuing trees with high ecological, aesthetic or cultural-historical values.

When placing buildings and other structures, the preservation of trees must always be a priority. Felling of trees that are not directly affected by the location of the building must be avoided. Tree felling may only take place if the tree is deemed dangerous, dead or terminally ill.

Protection of trees during the construction phase must always be carried out with the utmost care. It is crucial to delimit and protect the root systems and crowns of trees from damage by a good margin. Measures must be taken to avoid soil compaction near the trees and other soil changes that can damage the soil structure.

New planting of trees

When planting new trees, native species that are grown in Sweden must always be chosen. The quality of the trees, measured as the circumference of the trunk one metre above the ground, should be at least 16–18 cm, but a size of 25–30 cm is desirable to quickly provide the benefits. Trees must also be planted on/near parking areas, pedestrian paths, bicycle parking, etc.

Trees shall be placed so that they do not prevent future operations, such as snow removal.

Early in the project, a detailed watering and management plan shall be developed. This plan must then be followed throughout the course of the project, until handover to the responsible operations department.

Other vegetation on preschool yards, schoolyards and other community service property plots

All other possible existing vegetation such as shrubs, grasses, perennials, etc. must be retained to the extent that they contribute in a positive way. The aim is to contribute to biodiversity but also act as a carbon sink. When planting new plants, native species and varieties grown in Sweden should be chosen in the first place.

10 Plastic Usage

Throughout the project, all unnecessary use of plastic products must be avoided. This applies to products that are to be assembled as well as packaging materials.

Products that can be delivered without unnecessary plastic packaging and meet the requirements of Heading 3. Byggarubedömningen must always be prioritised when purchasing.

In addition, the City of Västerås' developed *Action Plan for a sustainable use of plastics applies*.

11 Procedures in projects

Early in each project, clear documentation must always be developed to meet the City of Västerås' requirements for sustainability throughout the project. Thus, the following must be produced and throughout the project reconciled:

- Environmental objectives of the project
- Procedure for local environmental protection work, e.g. presence of contaminated soil, noise, emissions to water, emissions to air
- Waste management plan including hazardous waste
- Procedure for minimizing waste
- Procedure for reducing plastic use in packaging, wrapping, etc.
- Procedure for material recycling
- Procedure for handling chemical products
- Procedure for selecting products and materials
- Procedure for handling work machines
- Measures to minimise energy use during the contract period
- Measures to minimise energy use during the lifetime of the facility
- Emergency preparedness
- Environmental risk analysis
- Audit Procedure