



Environment and Spatial Planning  
*Ministry of Housing, Spatial Planning and  
the Environment*

# Criteria for the Sustainable Public Procurement of **Sewerage Systems**

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These criteria for Sustainable Public Procurement were developed by NL Agency at the request of the Ministry of Housing, Spatial Planning and the Environment (VROM). The programme for sustainable operational management for public authorities (DBO) is a joint initiative of the Dutch Government, the Association of Netherlands Municipalities (VNG), the Association of Provincial Authorities (IPO) and the Association of Water Boards (UvW).

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# 1 Introduction

The Dutch government wants to take concrete steps towards a sustainable society, and to set a good example. Each year, government organisations spend more than EUR 50 billion on the purchase of Supplies, Services and Public works. By purchasing sustainably, the government can significantly boost the market for Sustainable Public Products. Governmental authorities have set clear objectives to achieve this: the central government is aiming for 100% Sustainable Public Procurement in 2010, while the municipalities aspire towards 75% in 2010 and 100% in 2015. Provincial governments and water boards have set themselves the target of at least 50% in 2010. 100% Sustainable Public Procurement is understood to mean that all purchases meet the minimum requirements that have been set for the relevant product groups at the time of purchase. More information on this topic is available from the website Sustainable Procurement ([www.agentschapnl.nl/sustainableprocurement](http://www.agentschapnl.nl/sustainableprocurement)).

NL Agency supports government authorities in various ways to help reach these objectives. These include developing criteria for Supplies, Services and Public works procured by these authorities. This document focuses on the criteria for the Sewerage Systems product group, the elaboration of the criteria in specification texts and a more detailed assessment of the criteria, as well as a number of points for attention in the pre- and post-procurement stages. Additional background information and considerations regarding the content of the criteria can be found in the criteria document on the website Sustainable Procurement [www.agentschapnl.nl/duurzaaminkopen/criteria](http://www.agentschapnl.nl/duurzaaminkopen/criteria), available in Dutch only.

Sewerage has traditionally been a provision aimed at sustainability. In the first instance, sewerage systems were constructed to remove infectious waste water from people's immediate vicinity to protect against sickness. In the second instance, sewerage systems protect the environment. The sewerage system is thus in fact part of a longstanding sustainable measure.

More recently, sewerage has been viewed in a wider sense as part of the whole water chain. This means for example that at the planning level other (partial) solutions for a sewerage system may be considered, and also that at detail level, there are possibilities for optimisation in for example the design, maintenance or material usage.

In sustainable procurement, it is considered whether there are possibilities to include sustainability aspects in the call for tender, for example in the schedule of requirements or in the assessment of sustainability in a tender via award on value.

Municipalities are almost one hundred per cent owners and managers of sewerage systems. Municipalities thus have a dominant role in the procurement of products and services, whether sustainable or not. With a replacement value of 58 billion euros and an estimated annual procurement volume of 1 billion euros, the sustainable procurement of product and services for the purposes of sewerage systems will have a noticeably positive effect on our living environment.

## 1.1 Definition of the product group

By sewerage was understood until 1 January 2008: the entirety of facilities for the collection and transport of waste water, excepting purification engineering works (NEN 3300). Works, services and supplies are considered here.

Since 1 January 2008, under the new Environmental Management Act, sewerage systems also include the public drainage system for the collection and further processing of groundwater.

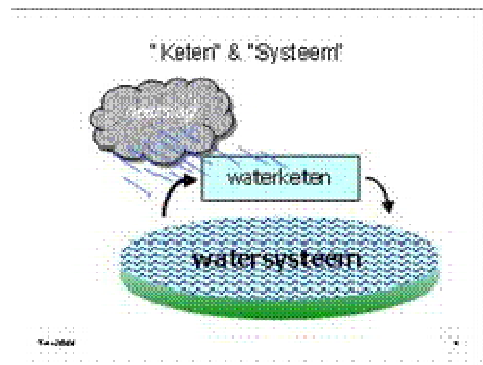
A link is made with the new legislation for the definition of this product group. In this way, the product group Sewerage Systems is defined as follows: the entirety of works, services and

supplies directed towards the collection and transport of waste water and rainwater runoff and directed towards the prevention of inconvenience by groundwater.

The sewerage system consists of different parts such as sewers, drains, street and pavement gullies, pumps, overflows, ancillary facilities such as settlement basins, infiltration facilities, pressure drainage and Individual Waste Water Treatment Systems (in Dutch, IBAs).

### Water chain interlude

Sewerage is part of the water chain. The water chain is the entirety of facilities for the extraction of ground and surface water to process, transport, distribute and use drinking water. After use, discharge into the sewerage system occurs and then transport to the waste water purification plant. After purification, the water is discharged into surface water or the soil.



|              |               |
|--------------|---------------|
| Keten        | Chain         |
| Systeem      | System        |
| neerslag     | precipitation |
| waterketen   | water chain   |
| watersysteem | water system  |

From a legal viewpoint, the following definitions apply from 1 January 2008:

- Public waste water sewerage system: facility for the collection and transport of urban waste water under the management of a municipality or a legal entity charged with the management by the municipality.
- Public rainwater system: facility for the collection and further processing of rainwater runoff under the management of a municipality or a legal entity charged with the management by the municipality. This does not concern the public waste water sewerage system.
- Public drainage system: facility for the collection and further processing of groundwater under the management of a municipality or a legal entity charged with the management by the municipality. This does not concern the public waste water sewerage system.

For the benefit of the contracting authority, a number of CPV codes that might be of relevance to this product group have been included in this document. The selection is by no means exhaustive or complete. The contracting authority will remain responsible for compiling the correct set of CPV codes to match the relevant tender.

The following CPV codes apply to this product group:

|            |                                        |
|------------|----------------------------------------|
| 45232410-9 | Sewerage construction                  |
| 45232440-8 | Installation of sewerage pipes         |
| 90114000-9 | Management of sewerage                 |
| 28830000-9 | Main sewerage pipelines                |
| 45232400-6 | Constructional activities for sewerage |
| 90113000-2 | Sewer cleaning services                |
| 45232400-6 | Laying of sewerage pipes               |

|            |                              |
|------------|------------------------------|
| 28863130-9 | Sewerage pipes               |
| 28527750-4 | Sewerage covers              |
| 28831000-6 | Sewerage gullies             |
| 29566500-9 | Sewerage grids               |
| 90115000-6 | Sewerage inspection services |

## 2 Sustainability in the procurement process

The criteria in this document have been classified in the various steps of the public procurement process. More information about these steps and how to combine them with sustainability can be found in the Sustainable Public Procurement Manual. This manual can be downloaded from the website Sustainable Procurement [www.agentschapnl.nl/sustainableprocurement](http://www.agentschapnl.nl/sustainableprocurement).

### 2.1 Preparatory stage (points for consideration)

In the preparation of a call for tender, many choices are made which have a great impact on sustainability. The inclusion of sustainability in the preparation of projects is not current practice and demands additional policy from the government bodies concerned. By involving sustainability in an explicit way at all stages, sustainable calls for tender gain more content and a sustainable realisation at a higher level becomes possible.

Every purchase or call for tender starts with drawing up the inventory of the needs of the internal or external customer. Sustainability can be incorporated into this stage by considering whether the purchase is truly necessary and whether a more sustainable alternative might be available. Specific points for consideration regarding procurement for the Sewerage Systems product group are:

#### Ensuring sustainability in the project

This approach demands that at an early stage, even before the formal start of the procurement phase, the sustainability aspects of the project are considered within the procuring organisation. In practice this will mean a collaboration among the project leader (advocate of technology and project result), the purchaser (financial advocate) and for example the environmental coordinator (sustainability advocate).

In the sustainable design of sewerage systems, certain conditions are of importance to a proper organisation and the incorporation of sustainability into the process. Below are listed some general attention points for the process, as these are also to be found in the National Civil Engineering Sustainable Building Package (GWW = Civil Engineering; see also sources in section 4.1):

- Organise sustainable building in the project (NP GWW 100);
- Take account of sustainable building in the project plan (NP GWW 101);
- Take account of sustainable building in the composition of the project team (NP GWW 103);
- Take account of sustainable building in communication (NP GWW 102);
- Take account of sustainable building in the financing of the project (NP GWW 104);
- Draw attention to risks in civil engineering projects, particularly with regard to the environmental effects to be realised (NP GWW 105);
- Take account during the design of future management and maintenance (NP GWW 106);
- In comparing cost aspects, employ the Total Costs of Ownership approach by which means the sustainability aspect will obtain (more) weight.

Besides ensuring sustainability in the process, there are opportunities to safeguard sustainability in the design, in the execution of works, in the utilisation stage or at the end of the lifetime. Below are several attention points as listed in the National Civil Engineering

Sustainable Building Package. The attention points are not always specific to sewerage systems, but there are reference points for the product group Sewerage Systems included in the measures concerned:

- Avoid over- and under-dimensioning (NP GWW 501);
- Aim for energy saving in civil engineering works (NP GWW 503);
- Harmonise the design with future management and maintenance (NP GWW 505);
- Harmonise the material choice and design with the envisaged lifetime (NP GWW 509);
- Aim for re-use of materials which are released (NP GWW 511);
- Prevent nuisance from vibration and noise (NP GWW 512);
- Limit the production of waste in construction, use and management (NP GWW 513);
- Limit traffic nuisance during implementation and maintenance (NP GWW 515);
- Restrict disruption of the surface and ground water system and the natural level and course of groundwater during the construction and use of works, and the natural quality of the groundwater in the construction and use of works (NP GWW 201, 202, 203 and 204);
- Use secondary and reusable materials in ground works (NP GWW 403).

## 2.2 Specification stage (criteria)

During the specification stage, the needs of the internal or external customer are translated into a tender document. This stage entails the formulation of:

- Criteria for supplier qualification. These could include grounds for exclusion, suitability requirements, i.e. requirements with regard to suppliers, and, in the case of restricted procedures, any selection criteria, i.e. wishes with regard to suppliers.
- A description of the minimum requirements pertaining to supply, service or task (the Schedule of Requirements).
- Award criteria, i.e. wishes regarding Supplies, Services and Public works. These are only applicable when the tendering process is based on the principle of the Most Economically Advantageous Offer ('Economisch Meest Voordelige Inschrijving' or EMVI).
- The contract stipulating the contract provisions.

More information on the various types of criteria and the various tender options can be found in the Sustainable Public Procurement Manual. Innovation is also included in the award criteria, where relevant. Innovation is oriented towards the development and introduction of new ideas and products.

The criteria in this document have been formulated to support the purchaser in the Sustainable Public Procurement of Sewerage Systems. The criteria have been subjected to legal review. However, every procurement and tender process is unique. For that reason, the drafting of a tender document remains the responsibility of the purchaser.

### Overview of criteria

The criteria apply to new construction, reconstruction and also to the management and maintenance of existing sewerage systems. Distinction is made in the table among the different forms of contract, such as design-only, design and construct (D&C), and construct-only.

**Table 3.1 Overview of criteria for sewerage**

| application area                     | Design | Construct | Design and construct | Manage and maintain | Removal |
|--------------------------------------|--------|-----------|----------------------|---------------------|---------|
| <b>Criterion</b>                     |        |           |                      |                     |         |
| <b>Suitability requirements</b>      |        |           |                      |                     |         |
| -                                    | -      | -         | -                    | -                   | -       |
| <b>Sewerage Minimum requirements</b> |        |           |                      |                     |         |
| Removal of materials                 | -      | X         | X                    | X                   | X       |
| Processing of released materials     | -      | X         | X                    | X                   | X       |
| <b>Award criteria</b>                |        |           |                      |                     |         |
| Energy-saving design                 | O      | O         | O                    | -                   | -       |
| <b>Contract provision</b>            |        |           |                      |                     |         |
| Management and maintenance plan      | -      | X         | X                    | -                   | -       |

X = include in this phase

- = do not include in this phase

O= optional

In the 'procurement' of sewerage systems, it is not generally sufficient for you to merely include the criteria for Sewerage Systems. In general, the simultaneous carrying out of ground works, the use of heavy vehicles or mobile equipment, the installation of cables and pipelines and the hiring-in of external consultancy services and purchase of electricity will also need to be considered. The criteria for these other product groups may be found on the website: [www.agentschapnl.nl/duurzaaminkopen/criteria](http://www.agentschapnl.nl/duurzaaminkopen/criteria).

## 2.2.1 Supplier qualifications

No criteria have been formulated for this specific product group with regard to supplier qualification. More information on the possibilities of incorporating sustainability at this stage of the process can be found in the Sustainable Public Procurement Manual.

## 2.2.2 Schedule of requirements

### Minimum requirements

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minimum requirement no. 1 | <p><i>(For construct, management &amp; maintenance, removal and design &amp; construct)</i></p> <p><b>Removal of materials</b></p> <p>Excavated and released materials from the sewerage system must be transported to a processor recognised and certified for this work, clean of adhering dirt and soil and free from chemical contamination.</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Declaration from the tenderer that this minimum requirement is complied with.</li> <li>2. List of recognised and certified processors to which material will be removed.</li> <li>3. Copies of the certificates of the processors to which the material will be removed.</li> </ol> |
| Notes for purchaser       | <p>The nationally-applicable BIS (<i>Buizen Inzamel Systeem</i> = Pipe Collection System) coordinated by BureauLeiding in The Hague is the recognised collection system for materials released from plastic piping systems.</p> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. List of recognised and certified processors to which material will be removed.</li> <li>2. Based on copies of certificates.</li> <li>3. Collection of further information from the certification body.</li> </ol>                                                                                                                                                                        |

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minimum requirement no. 2 | <p><i>(For construct, design &amp; construct, management &amp; maintenance and removal)</i></p> <p><b>Processing/removal of released substances</b></p> <ol style="list-style-type: none"> <li>1. If stony waste is broken up, the breaking must take place according to BRL 2506.</li> <li>2. Tar-containing asphalt (granulate) must be transported away to a processing and treatment establishment in the Netherlands, licensed on the grounds of the Environmental Management Act, for the thermal cleaning of the tar-containing material.</li> <li>3. <i>(In the case of a temporary establishment, which does not come within the Environmental Management Act and the Activities Decree)</i></li> </ol> <p>Provisions must be made on the implementation site to store separately or otherwise transport away separately the different types of waste arising from the activities, Provisions</p> |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | <p>must also be made on the implementation site for the separate storage of released secondary raw materials.</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Declaration from the tenderer that he complies with this minimum requirement.</li> </ol> <p><u>Further supporting document with regard to an aspect mentioned under point 1.</u></p> <ol style="list-style-type: none"> <li>2. A description of the means by which the tenderer complies with this requirement. If the tenderer or subcontractor possesses a KOMO product certificate 'BRL 2506 <i>beton en/of menggranulaat</i>' (concrete and/or mixed granulate) in the name of the tenderer or subcontractor, this requirement is fulfilled.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Notes for purchaser | <p><i>Explanation of point 2 of this criterion</i></p> <p>The purchaser is advised to employ CROW publication 210 <i>Richtlijn omgaan met vrijkomend asfalt – Aandacht voor de teerproblematiek</i> (Guideline for dealing with released asphalt – Attention to the tar problem).</p> <p><i>Explanation of point 3 of this criterion</i></p> <p>The part of the requirement concerning the separation of waste substances is already a legal requirement for most establishments, arising from the Environmental Management Act, but because temporary establishments do not fall under this, said requirement is therefore stipulated here explicitly.</p> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. No further verification.</li> </ol> <p><u>Further supporting documents with regard to an aspect mentioned under point 1.</u></p> <ol style="list-style-type: none"> <li>2. A description of the way in which the granulate is processed, from which can be deduced whether this conforms to BRL 2506 concrete and/or mixed granulate.</li> <li>3. A statement from the entity processing the granulate.</li> <li>4. Check of the certificate on <a href="http://www.bouwkwiteit.nl/">www.bouwkwiteit.nl/</a>.</li> </ol> |

### 2.2.3 Award criteria

#### Award criteria

|                      |                                                                                                                                                                                                 |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Award criterion no.1 | <p><i>(For design and design &amp; construct)</i></p> <p><b>Energy-saving design</b></p> <p>The more energy-saving a design for a sewerage system is, the higher the tender will be graded.</p> |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | <p>Assessment will take place based on a description of the following elements which must be detailed in the design with an associated estimate of energy consumption:</p> <ul style="list-style-type: none"> <li>• ...;</li> <li>• [to be completed further by the purchaser].</li> </ul> <p>The estimated energy consumption should be calculated in kWh/usage year.</p> <p>The plan will be assessed on its technical realism content and the level of the estimated energy consumption of the elements listed above.</p> <p>The tender will be evaluated as follows: [...]</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. The description.</li> </ol> |
| Notes for purchaser | <p>The contracting authority must detail this criterion further by awarding points, taking account of the relative importance of this criterion.</p> <p>The elements on which assessment will be done must be described clearly and unambiguously.</p> <p>As reference a comparison may for example be made with a similar system in which in any event the minimum requirements as listed in this document are applied. In the replacement of an existing situation, the energy consumption of the old situation may serve as a lower limit.</p> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. No further verification.</li> </ol>          |

## 2.2.4 Contract

### Contract provisions

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Contract provision</p> <p>No.1</p> | <p><i>(For construct and design &amp; construct)</i></p> <p><b>Management and maintenance plan</b></p> <p>At the handover of a sewerage system, a management and maintenance plan must be supplied, in which are described the maintenance measures required to keep the sewerage system in good order. The plan should describe the means of management and maintenance, necessary to maintain the sustainable aspects of the sewerage system.</p> <p>The plan should consist in any case of the following sections:</p> <ul style="list-style-type: none"> <li>• Description of the management measures to be taken into account with inspection intervals for a period of XX years,</li> </ul> |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | <p>with associated instructions (at least describing inspection points, methods, estimated number of person-hours).</p> <ul style="list-style-type: none"> <li>• Description of the maintenance intervals to be taken into account for a period of XX years, with associated instructions (at least describing maintenance activities and necessary materials and an estimate of number of person-hours and any relationship with other activities for which for example excavation is necessary).</li> </ul> |
| Notes for purchaser | <p>The sustainable aspects of a sewerage system may relate for example to the maintenance and management of certain materials and installations. For instance, a certain low-maintenance material may require a modified maintenance regime.</p> <p>If a change takes place such that a new management and maintenance plan is necessary, separate agreements must be made with the tenderer for this. Provisions for this may also be laid down in the contract.</p>                                         |

### 2.3 Utilisation stage (points for consideration)

Once the procurement stage has been concluded and a product or service has been purchased, there are opportunities for using the product in a sustainable manner.

No specific points for consideration have been formulated for the utilisation stage for this product group.