



There are still many challenges in wastewater collection, discharge, and treatment

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Audit report

There are still many challenges in wastewater collection, discharge, and treatment

Combined (compliance/ performance) audit “Does the wastewater collection, discharge, and treatment system established in the country ensure the protection of the environment against the harmful effects of urban wastewater?”

28 August 2020

The audit was performed based on the audit schedule No 2.4.1-39/2019 of the Fifth Audit Department of the State Audit Office of 9 September 2019.

The cover design uses photos from the website *Depositphotos*.

Dear Reader,



Municipal and industrial wastewater is not a burning car tire, an oil spill, or any other visible environmental nuisance, but the consequences of discharging untreated wastewater into the environment are just as visible and felt for all of us.

When rephrasing an ancient saying about all the roads leading to Rome, one can say that all the rivers in Latvia flow into the sea by carrying the wastewater flowing from underground springs, streams, and ditches with them. Unfortunately, there is reason to believe that a significant proportion thereof have not been properly treated. This is evidenced, for example, by the deterioration of the quality of the Baltic Sea ecosystem resulting in the proliferation of blue-green algae and the extinction of marine fish, mammals, and other living organisms.

During the audit, we have concluded, “the cart has gone ahead of the horse” in the arrangement of the wastewater sector in Latvia in recent decades. Namely, one has developed solutions and made large investments in wastewater management, often before a comprehensive assessment of the problems and their extent. There have been various reasons for that, including the reasons beyond the situation in Latvia, focusing on which does not make much sense now. Instead, it is important for everyone to work together vigorously on the remaining work.

Therefore, the State Audit Office has carried out a comprehensive identification of existing and forthcoming challenges within this audit by outlining the work to be done in local and regional governments clearly and drawing the attention of policy-makers to the problems that must be addressed at the national level.

In addition to the audit report and the provided recommendations, our work resulted in a drafted self-assessment questionnaire, by using which any Latvian local or regional government can assess the situation in wastewater management impartially and comprehensively and choose the most appropriate solutions.

We are aware that wastewater collection and treatment is expensive and often requires significant investments of population, businesses, state, and municipal funds. Therefore, we call on the designated state and municipal institutions to use the forthcoming administrative-territorial reform to join competences and resources that are still very scattered in many places, to exchange best practices, and find effective solutions for full identification of wastewater volumes, for providing and monitoring wastewater collection and treatment, and for providing support to the community. We expect that the audit findings and conclusions will be useful for those endeavours.

We thank the employees of all ten local and regional governments, the Ministry of Environmental Protection and Regional Development, and the State Environmental Service for their constructive cooperation in providing the information necessary for the audit and discussing the audit results! We appreciate your contribution for the audit while searching solutions to the urgent challenges in wastewater management!

Respectfully yours,
Edgars Korčagins
Department Director

A handwritten signature in black ink, appearing to be 'EK', written over a light blue horizontal line.

Summary

The environment and water resources are exposed to various hazards, so taking care to protect those resources and reduce pollution is crucial by identifying all sources of danger in order to prevent their harmful effects.

Untreated wastewater both affects the quality of drinking and domestic water and also contributes to the overgrowth of water bodies by reducing water transparency and destroying species in water bodies.

There are about 818 thousand households and about 185 thousands of economically active companies in Latvia, whose activity generates both domestic and industrial wastewater every day. It is therefore essential that both domestic and industrial wastewater is properly treated in all centralised (urban and rural) as well as individual wastewater treatment plants before it enters open water or soil.

The Directive concerning urban wastewater treatment¹ adopted by the European Union (hereinafter - the EU) sets clear and binding targets. However, when choosing the means to achieve those targets, alternative solutions and innovations in both wastewater collection and treatment are possible.

The Ministry of Environmental Protection and Regional Development (hereinafter – the MEPRD) defines the environmental policy in wastewater management in Latvia. At the national level, several laws and regulations have been adopted to ensure environmental quality and appropriate wastewater management such as the Law on Water Management Services, the Cabinet Regulation on pollutant emissions into water², as well as regulations on the management and registration of decentralised sewerage systems³.

According to the laws and regulations, wastewater collection and treatment shall be provided in two ways:

- ⊗ District sewerage systems by installing district sewerage networks to houses and constructing wastewater treatment plants, which receive wastewater from houses connected to those systems;
- ⊗ Decentralised sewerage systems like collector tanks, septic tanks, or individual treatment plants used for wastewater collection by households or production facilities that are not connected to district sewerage networks.

For ensuring the fulfilment of the obligations specified in laws and regulations in wastewater management, local and regional governments shall perform several tasks:

- ⊗ Determine the borders of territories or agglomerations for the solutions of sewerage systems, where uniform wastewater treatment requirements will be applied, and define the territories in territorial planning documents where the district



Tasks to be performed by local and regional governments:

- determination of territories and boundaries - where any systems are to be used;
- establishment of the organisational structure of wastewater service providers;
- determination of appropriate service fees;
- monitoring and control of the operation of wastewater management systems.

sewerage networks have been built or will be built, as well as the criteria and requirements for connections;

- ⊗ Establish such a structure of wastewater management service providers that would ensure the treatment of all wastewater collected in its administrative territory, both from district and decentralised sewerage systems;
- ⊗ Ensure that appropriate charges for waste water collection and treatment services are set or approved;
- ⊗ Participate in the supervision and control of the operation of the systems used for wastewater management.



The laws and regulations provide for the treatment of all wastewater, both collected from district and decentralised sewerage systems.

Since the restoration of Latvia's independence, **large investments have been made** in wastewater management including **wastewater infrastructure**, and, while implementing water management projects, local and regional governments have renovated and built new district sewerage networks and wastewater treatment plants.

Main Conclusions

The audit findings prove that **there are still unresolved issues** and much remains to be done **in wastewater discharge and treatment**.

Several problems identified such as storm-water drainage, the use of sludge, low number of connections to district sewerage systems, and management of decentralised sewerage systems have been known for many years. Despite the fact that **one has invested one billion euros in the improvement of district sewerage systems in wastewater management, the solution to those problems is still relevant**. Solutions have either not been developed or have not been effective enough to address those issues.

Although both policy planning documents⁴ and several important laws and regulations have been drafted⁵, the developed policy instruments will not solve all the problems affecting the quality of the environment and will not prevent the untreated wastewater from entering the environment.

First of all, because the major type of wastewater collection enjoying the largest public sector investment, that is, district wastewater systems do not provide the intended effect. We have established that **the local and regional governments** included in the scope of the audit **have not been able to uptake even half of**



Regular discharge of wastewater from decentralised sewerage systems is not ensured resulting in up to 64% of households discharging wastewater for treatment less than once a year or not at all.

the established connection possibilities by expanding the district sewerage networks.

The right of local and regional governments and service providers **to co-finance the construction of connections**, which was planned as solution for increasing the number of connections, did not facilitate **the increase in the number of household connections** either. Only 3 out of 10 local and regional governments included in the audit scope, and only 30 out of 119 local and regional governments in total in the country have had the opportunity to co-finance the construction of connections partially.

The auditors find that the increase in the number of connections is also not facilitated by the fact that **municipal spatial planning documents do not provide households with detailed information on where it is planned to build district sewerage networks**, and many households have perhaps built their decentralised sewerage systems without interest in connecting to district sewerage networks.

In its turn, **the significant volume of wastewater** generated in the various decentralised household sewerage systems, **has long been left out of full supervision**. The small number of cases per year (26%) where, in the local and regional governments included in the audit, households have discharged collected wastewater for treatment indicates that up to 64% of households treat wastewater less frequently than once a year or not at all (assuming that up to 10% of wastewater could be treated in individual wastewater treatment plants of households).

If compliance with the statutory requirements⁶ on regular discharge of wastewater from decentralised sewerage systems had been monitored, then problems with the release of untreated wastewater into the environment should not arise. However, local and regional governments have not organised control over the observance of those regulations for more than 15 years **but the MEPRD**, as the developer of environmental protection policy, laws, and regulations, **has not followed whether the approved policy and adopted regulations are being implemented**.

The new regulations⁷ adopted in 2017, which oblige local and regional governments to establish procedures for control and supervision of decentralised sewerage systems and impose strict requirements regarding the use thereof and obligations on their owners (households) **will not eliminate problems with the release of untreated wastewater into the environment either**, because:

- ⊗ The introduction of the new regulatory framework for the management of decentralised sewerage systems has led to legal shortcomings such as erroneous regulation of the transitional provisions, and the non-implementation of the legislative authorisation in the binding regulations, which will hinder the implementation of the regulations;
- ⊗ Local and regional governments: It may be necessary to upgrade or build sanitary sewerage treatment plants for the



Local and regional governments charge unreasonable fees for wastewater disposal, which exceeds the actual costs of providing the service significantly.

It does not motivate the population to dispose the wastewater collected in decentralised sewerage systems.

reception of wastewater from decentralised sewerage systems in many places;

- ⊗ **Population** (households): In the areas determined by local and regional governments, where connecting to district sewerage systems will not be possible, one shall rebuild their collector tanks or septic tanks, which will be difficult to do without state or municipal financial support due to their low solvency but the national policy does not envisage such support.

Although the reports of the MEPRD⁸ on the collection, discharge, and treatment of wastewater indicate that the harmful impact of wastewater on the environment is decreasing from year to year, the State Audit Office considers that one cannot assess the extent of the harmful effects of this wastewater on the environment until a system is in place that can identify all the volumes of wastewater collected and treated in the economy, including decentralised sewerage systems.

The unreasonably high fee for wastewater disposal detected during the audit in the local and regional governments (up to 75.48 euros per barrel (4-5 m³)) from decentralised sewerage systems (collector tanks), taking into account the frequency of disposal up to 12 times a year, in the opinion of the auditors, **will not motivate the population to prevent the untreated wastewater from entering into the environment.**

In addition, wastewater management service providers do not keep records of costs by type of services provided, and the same expenditure items are included in both the fee for sanitary wastewater disposal and wastewater collection and treatment tariffs approved by the Public Utilities Commission (hereinafter – the Regulator) in some cases. Consequently, the calculation of the fee is unreasonable, and the recipients of the services overpay for the service. Thus, for example, in Aizpute and Līvāni Regions, **wastewater management companies have earned income by including unjustified costs in the calculations for sanitary sewerage services of 16,057 euros in Aizpute Region and 10,473 euros in Līvāni Region.**

Without full supervision of decentralised wastewater collection and recording of its volume, planning the required capacity of wastewater treatment plants is impossible. As a result, several **built or renovated treatment plants cannot treat all volumes of wastewater generated in the administrative territory of the local or regional government** from decentralised sewerage systems at all. In 10 local and regional governments included in the audit scope, only 19 out of 123 wastewater treatment plants from district sewerage systems are used to receive and treat wastewater collected from decentralised sewerage systems.

The fact that most local and regional governments is utilising wastewater sewerage networks built during the Soviet era for the wastewater collection, where the storm-water drainage system is not separated from the domestic wastewater collection system, also affects the performance of treatment plants adversely. **Due to the lack of storm-water drainage systems, large volumes of storm-water** have entered the treatment plants **by affecting the operation**



Up to 96% of the treated wastewater is storm-water, infiltration, or recording problems.

Up to 40% of sewerage sludge is located in temporary storage, and its potential is not used.

District sewerage networks have been built, but half of the planned households do not connect to them.

of the treatment plants adversely. In addition, **local and regional governments do not have plans to address those challenges.**

One must also solve the issue regarding the use of sewerage sludge generated in the result of wastewater treatment urgently. **A large proportion of sewerage sludge** of even up to 40% is **still in temporary storage** in the areas of sewerage treatment plants, **and its potential**, that is, opportunity to be used as a fertiliser in agriculture or as a fuel, **is not being exploited.**

The institutional structure of wastewater service providers or **the way how local and regional governments organise wastewater collection, discharge, and treatment also requires improvements.** Several municipal institutions provide those services in 7 out of 10 local and regional governments included in the audit scope. For example, as many as nine institutions, that is, two municipal enterprises and seven rural district administrations, provide the service in Bauska Regional Government. However, this approach has a number of drawbacks that also affect the quality of service provided. For example, making improvements to the wastewater management infrastructure is impossible without the financial support of other institutions due to the unreasonably low sewerage service fee set by rural district administrations. Preventive flushing of networks, which is essential for the quality maintenance of networks, is mostly performed only in municipal enterprises, while in case of the lacking resources of rural district administrations, that procedure is outsourced to the municipal enterprise. Although, the financial flow would be planned for all managed objects with a centralised institutional structure.

In addition, **the fee for wastewater collection and treatment services provided by rural district administrations does not correspond to the actual costs**, as a part of the costs, that is, accounting, service administration, and other indirect costs are covered from the municipal budget, hence it is not legal and fair to taxpayers and those residents, who receive wastewater collection and treatment services from municipal enterprises.

The audit findings show that both the MEPRD and local and regional governments will need to find solutions to the following issues:

- ⊗ The improvement of laws and regulations;
- ⊗ Providing connections to the district sewerage system;
- ⊗ The establishment of the organisational structure of wastewater collection and treatment service providers;
- ⊗ Solving storm-water and infiltration problems;
- ⊗ The management and control of decentralised sewerage systems;
- ⊗ Charging reasonable fees for wastewater collection and treatment services.

Unclear planning of sewerage systems and identification of agglomerations

For residents who live or plan investments in construction in a particular local or regional government, it is important to know what infrastructure is available in the administrative territory of the local and regional governments and what are the prospects for its development.

The audit has established that the majority of municipal territorial planning documents does not provide detailed information on the planned and available construction of the district sewerage system in the specific territories. In their turn, municipal building regulations do not always provide clear building criteria for the construction of a connection to the district sewerage system (for example, the maximum distance from the sewerage network where the household is obliged to make a connection). Those factors do not contribute to the formation of a sustainable investment environment, thus jeopardising a return on investment and the successful development of the territory as a whole.

Also, the local and regional governments have not created necessary administrative preconditions for the compliance with the requirements for the treatment of municipal wastewater stipulated in specific territories because the borders of agglomerations have been determined only in episodic cases. As a result, it is not possible to achieve the reduction of wastewater pollution specified in the law fully, nor to organise appropriate environmental control.

The built district sewerage systems do not pay off because households do not hurry to cut in

The audit has discovered that **the investments made in local and regional governments have not yielded the expected results because the built wastewater collection infrastructure is not fully used**. Sewerage networks are built from the funds of the European Union, state and municipal budgets, while the residents must build a connection to the household at their own expense.

The EU funding in water management has mostly been absorbed, and the planned projects have been implemented. Nevertheless, the households have used only 47% of the provided opportunities to connect to the district sewerage system in towns and villages of the local and regional governments included in the audit scope in 5 to 10 years after the construction of district sewerage networks. For instance, no household has cut in the district sewerage network built in 2014 with three new connections until the preparation of the audit report in Kazdanga, Aizpute Region.

The possibilities provided by the Law on Water Management Services⁹ for local and regional governments to provide co-financing for the installation of the connections could promote households to cut in the district sewerage systems. However, the audit findings demonstrate that **local and regional governments do not rush to provide support for the installation of connections**, as such support is envisaged only in 3 of 10 local and regional governments included in the audit sample and in 30 of 119 local and regional governments in the country in total. The situation in the local and regional governments that co-finance the construction of connections is also not much better. For example, the co-financed connections in the local and regional governments included in the audit scope have increased the share of connections only by 7% in Aizpute (two connections) and by 14% in Pīrikuļi village, Preiļi Region (six connections).

The audit found that in 10 local and regional governments included in the audit scope, up to 65% of households use one of the decentralised sewerage systems currently and that the wastewater collected from those systems enters and is treated in municipal wastewater treatment plants during the year only in ~ 26% of cases. At present, **neither local and regional governments** as organisers of wastewater management services, **nor the MEPRD** as implementer of environmental policy **have information on where** the remaining 74% **of wastewater from decentralised sewerage systems disappear**.

At the same time, the data published by several wastewater management operators (in Vecumnieki, Skrunda, Tukums, Jelgava, and Preiļi Regions) show that the capacity of wastewater treatment plants is already exhausted because they cannot treat additional volumes of wastewater collected from decentralised sewerage systems. Already in 2018, if the volumes of all wastewater collected from decentralised sewerage systems had been treated, according to the auditors' estimates, the wastewater treatment plants of those local and regional governments would not be able to provide it (total annual reserve of polluting wastewater capacity (CE) was negative).

Institutionally fragmented provision of wastewater management services in local and regional governments

The Law on Water Management Services allows a local or regional government to choose the mode in which it will provide sewerage services whether to entrust sewerage services to their institution or to authorise an economic operator (municipal enterprise) to provide the service. However, the local or regional government must comply with the obligation specified in the State Administration Structure Law to organise the provision of those services as efficiently as possible in any case. This, in its turn, means constantly reviewing the institutional system and improving it if necessary. Local and regional governments need to consider whether centralised or decentralised institutional system would be more appropriate for the provision of wastewater management services.

Only one regional government out of 10 local and regional governments included in the audit sample, Jelgava Regional Government **has assessed the economy and efficiency of the existing institutional form**. In Jelgava¹⁰, Viesīte, and Skrunda Region, one municipal enterprise provides the sewerage service. In other local and regional governments, three to even nine municipal institutions provide this service (for example, in Bauska Region). Such a decentralised organisational structure has been maintained since the previous municipal reform and, in the view of the auditors, needs to be reviewed to ensure both the economy and the efficiency of service provided.

Although the local and regional governments pointed out a number of advantages, according to them, of maintaining a decentralised service provision with lower sewerage charges, faster emergency response, labor and resource savings, such advantages were not confirmed during the audit and were rather considered restrictions on more efficient and cost-effective service provision:

- ⊗ A lower fee for sewerage services provided by rural district administrations is formed from the costs not included in the calculations. Nevertheless, such a charge, which does not include expenditure on planned improvements to wastewater management infrastructure, limits the scope for addressing the issues affecting wastewater management and environmental quality without co-financing. In addition, the costs not included in the calculation of the service fee such as accounting and service administration costs are covered from the budgets of the rural district administrations, hence it is unfair to those residents of the local or regional government, who receive services from the municipal enterprises by covering all the costs;
- ⊗ Faster response does not justify the need to employ on-site staff in the specific rural district administration because the number of accidents in the managed systems is low. Those are four accidents or repairs per year at an average. For instance, three out of five rural district administrations have not had to deal with any emergency situation in Līvāni Regional Government. Besides, in cases when the number of employees or technical support of rural district administration is insufficient, it is also outsourced.

The different approach of several municipal institutions in one local or regional government in ensuring the quality of service indicate the shortcomings of the existing organisational structure that can be remedied in order to ensure a uniform quality of service. For example, in rural district administrations, where employees are involved in preparing reports who do not know the nuances of wastewater management such as accountants, but in municipal enterprises experts are engaged, only municipal enterprises are performing preventive flushing of sewerage networks mainly while rural district administrations are not performing it at all.

Unresolved storm-water collection and infiltration problems

Problems of storm-water and infiltration in sewage have been known for years, as most local and regional governments operate district wastewater collection networks, which were built during the Soviet era, when separate storm-water drainage systems were built only in major cities. **The problem of storm-water entering the sewerage systems** has still not been **adequately addressed with storm-water straining** and even pat overloading **wastewater treatment plants, and** accidents sometimes result in **large volumes of untreated wastewater leaking into the environment**.

Problems with unrecorded but treated wastewater volumes were identified in virtually all local and regional governments included in the audit scope.

The fact that the volumes of wastewater treated in municipal wastewater treatment plants but not recorded (for which no invoices have been issued) constitute more than 20% and even exceed 80% in several local and regional governments like Aizpute, Bauska, Līvāni, and Vecumnieki Regional Governments, indicates to both the problems of accounting and technical problems, which, according to the explanations provided by the local and regional government, are due to the outdated sewerage networks and the lack of separate storm-water drainage systems.

Although all local and regional governments included in the audit sample confirmed the existence of storm-water and infiltration problems, none of them **had an action plan to address the problems in a targeted manner**.

The fee for wastewater management is set without justified calculations, sometimes even two-fold

In many local and regional governments, **the fee for wastewater collection and treatment services is not economically justified**, as the accounting of expenses for each type of service is not separated from the total water management or other expenses, for example, of rural district administration. Consequently, municipal institutions involved in wastewater management do not have the opportunity to follow the actual costs to make the necessary changes in the amount of the fee in a timely manner.

The audit revealed that **the fees set** in local and regional governments for wastewater management services **are not reviewed regularly and the actual costs are not controlled** (for example, there was still a fee set in 2008 for the use of sewerage, which is many times lower than the actual service costs in Sauna Rural District Administration of Preiļi Region).

Despite the fact that several local and regional governments have developed a methodology for setting fees for services, including wastewater collection and treatment services, **the requirements**

set out in the methodology are not observed, as the fee calculations do not include indirect costs and not all direct costs of providing services when preparing calculations.

In those local and regional governments where the Regulator has approved wastewater collection and treatment fees (tariffs), the cost accounting and calculations are much better with cost accounting being transparent and the prepared calculations being based on appropriate costs.

According to the auditors, the actions of local and regional governments in setting an unreasonable fee for the removal of sewage do not encourage the users of decentralised sewerage systems to use sewage disposal services to discharge the wastewater accumulated in their systems for treatment.

The European Union funded projects do not assess alternatives and do not use public private partnership in wastewater treatment

The audit has established that **the most important alternatives have not been evaluated** in Preiļi Regional Government **when making investments and attracting investments** within the framework of EU funded projects for the reconstruction and construction of wastewater collection, discharge, and treatment systems.

Between 2007 and 2009, Preiļi Regional Government reconstructed wastewater treatment plants with new equipment installed in the city of Preiļi, although industrial wastewater treatment plants with the capacity to treat the wastewater collected in the city of Preiļi were already built at a private joint stock company “Preiļu siers”.

The audit found out that JSC *Preiļu siers* was not participating in the implementation of the project, although there were no technical obstacles with the capacity of the equipment at the disposal of the economic operator to treat the wastewater collected in the territory of the city of Preiļi. Basically, one required to build only one sewage pumping station, whose costs would be incomparably lower than the investments that Preiļi Regional Government actually made.

This is the case for Preiļi Regional Government **to spend at least 1,739,285 euros** for the construction of equivalent wastewater treatment plants, wherefrom 51% was financed from the EU Cohesion Fund, 25% from the state budget, 14% from *Preiļu saimnieks* Ltd, and 10% from Preiļi Regional Government.

The auditors consider that, when assessing the possibilities of public private partnership and economic risks in wastewater treatment in the city of Preiļi, the invested EU funds and the state budget funds could have been used for other projects, but the part of the co-financing from Preiļi Regional Government and *Preiļu saimnieks* Ltd of ~ 400,000 euros could be used to solve other problems relevant to the population of Preiļi Region.

Achieving the criteria set in the audit

For assessing the formation of the national policy in wastewater management, the development of solutions, and the effectiveness of their implementation, there were 18 audit criteria in total agreed with the MEPRD and local and regional governments.

Out of the nine criteria, set for the assessment **of the development and implementation of the national policy** in wastewater management and agreed with the MEPRD and the local and regional governments included in the audit scope,

- ⊗ **One criterion** on identifying problems in wastewater collection and treatment **is achieved**;
- ⊗ **Six criteria** on the development of solutions to problems, the identification of possibilities for the wastewater collection, discharge, and treatment, the impact assessment of wastewater on the environment, and the possibilities of financial support for the installation of connections **are achieved partially**;
- ⊗ **One criterion** on the identification of potential volumes of wastewater, the actual connections of households to district sewerage systems, and the determination of the volume of wastewater and the extent of pollution **are not achieved**;
- ⊗ **Assessment of one criterion was terminated** because the auditors could not rely on the data submitted by local and regional governments on the number of households that had access to cut in the district sewerage systems due to the reliability of the data collection.

The achievement of the criteria in the development and implementation of the national policy in general has been scored 22 out of 50 possible points. According to the coordinated criteria, the national policy and its implementation can be considered effective if the total score of the achievement of the criteria reaches at least 40 points.

Also in the assessment of the preconditions established and economy and effectiveness of the operation of wastewater collection, discharge, and treatment systems **in the local and regional governments, out of the nine criteria** set and coordinated with the local and regional governments included in the audit scope,

- ⊗ **One criterion** on meeting the principle “the polluter pays” **is achieved**;
- ⊗ **Four criteria** on the conformity of the capacity and technical capabilities of wastewater treatment plants (hereinafter - WWTP), the establishment of the organisational structure, the calculation of service fees, and the amounts of relative changes in the costs of services provided **are achieved partially**;
- ⊗ **Four criteria** on the validity of agglomerations and their borders, the inclusion of sewerage systems in municipal spatial plans, the volumes of treated and collected wastewater, and the action plans for solving the problems caused by infiltration and storm-water **are not achieved**.

The achievement of the criteria in local and regional governments as a whole has been scored 16 out of 50 possible points. According to the coordinated criteria, the preconditions provided by local and regional governments and their actions in wastewater collection, discharge, and treatment may be recognised as effective if total score for the achievement of the criteria reaches at least 40 points.

Major Recommendations

Following the findings of the regularity and performance audit and the conclusions of the auditors, there are recommendations issued to the MEPRD regarding:

- ⊗ Assessment of existing solutions to eliminate problems and development of new solutions.

In their turn, there are recommendations provided to 10 local and regional governments included in the audit scope concerning:

- ⊗ The need to become more involved in measures to ensure the collection and treatment of wastewater generated by decentralised sewerage systems, including the adequacy of the capacity of wastewater treatment plants (hereinafter - WWTP) to be capable of treating all wastewater collected from decentralised sewerage systems;
- ⊗ The improvement of territorial planning documents and building regulations and determination of agglomerations;
- ⊗ The assessment of the economy and effectiveness of the organisational structure and institutional format of wastewater management;
- ⊗ Tackling the problems caused by storm-water and infiltration and the need to develop action plans to reduce volumes thereof;
- ⊗ The determination of reasonable fees for wastewater collection and treatment services, with particular emphasis on the separation of cost accounting by type of service provided.

¹ Council Directive 91/271/EEC of 21 May 1991 concerning urban wastewater treatment.

² Cabinet Regulation No 34 “Regulations on the Emission of Pollutants into Water” of 22 January 2002.

³ Cabinet Regulation No 384 “Regulations on the Management and Registration of Decentralised Sewerage Systems” of 27 June 2017.

⁴ For instance, Specific Directive Implementation and Financing Plan, available online at <http://www.varam.gov.lv/files/text/notekud.pdf> (resource viewed on 11 June 2020); National Environmental Policy

Plan 2004-2008 (approved by Cabinet Order No 81 of 14 February 2004), available online at <http://polsis.mk.gov.lv/view.do?id=1111> (resource viewed on 11 June 2020); Action Program for the Reduction of Surface Water Pollution by Municipal Wastewater and Hazardous Substances 2014-2020 (approved by Cabinet Order No 181 of 31 March 2004), available online at http://www.varam.gov.lv/files/text/ric_prog_kom_notekud_bist_viel_radit_virszem_ud_pies.doc;

Environmental Policy Guidelines 2009-2015 (approved by Cabinet Order No 517 of 31 July 2009, valid until 25 March 2014), available online at <http://polsis.mk.gov.lv/documents/3095> (resource viewed on 26 May 2020); Environmental Policy Guidelines 2014-2020 (approved by Cabinet Order No 130 of 26 March 2014), available online at <http://www.varam.gov.lv/lat/pol/ppd/vide/?doc=17913> (resource viewed on 25 May 2020).

⁵ For example, Cabinet Regulation No 34 “Regulations on the Emission of Pollutants into Water” of 22 January 2002, the Law on Water Management Services, Cabinet Regulation No 384 “Regulations on the Management and Registration of Decentralised Sewerage Systems” of 27 June 2017.

⁶ Article 34, 35, and 42 of the Cabinet Regulation No 34 “Regulations on the Emission of Pollutants into Water” of 22 January 2002.

⁷ Cabinet Regulation No 384 “Regulations on the Management and Registration of Decentralised Sewerage Systems” of 27 June 2017.

⁸ Reports of the Ministry of Environmental Protection and Regional Development for 2016 and 2018 “Management of Municipal Wastewater and Sewage Sludge in Latvia”, available online at http://www.varam.gov.lv/lat/publ/publikacijas/vides_aizsardzibas_joma/?doc=11643 (resource viewed on 14 January 2020).

⁹ Article 6.6 of the Law on Water Management Services.

¹⁰ Except for the village of Vītolīni in Jelgava Region, where VALGUNDE Ltd manages the district sewerage system.