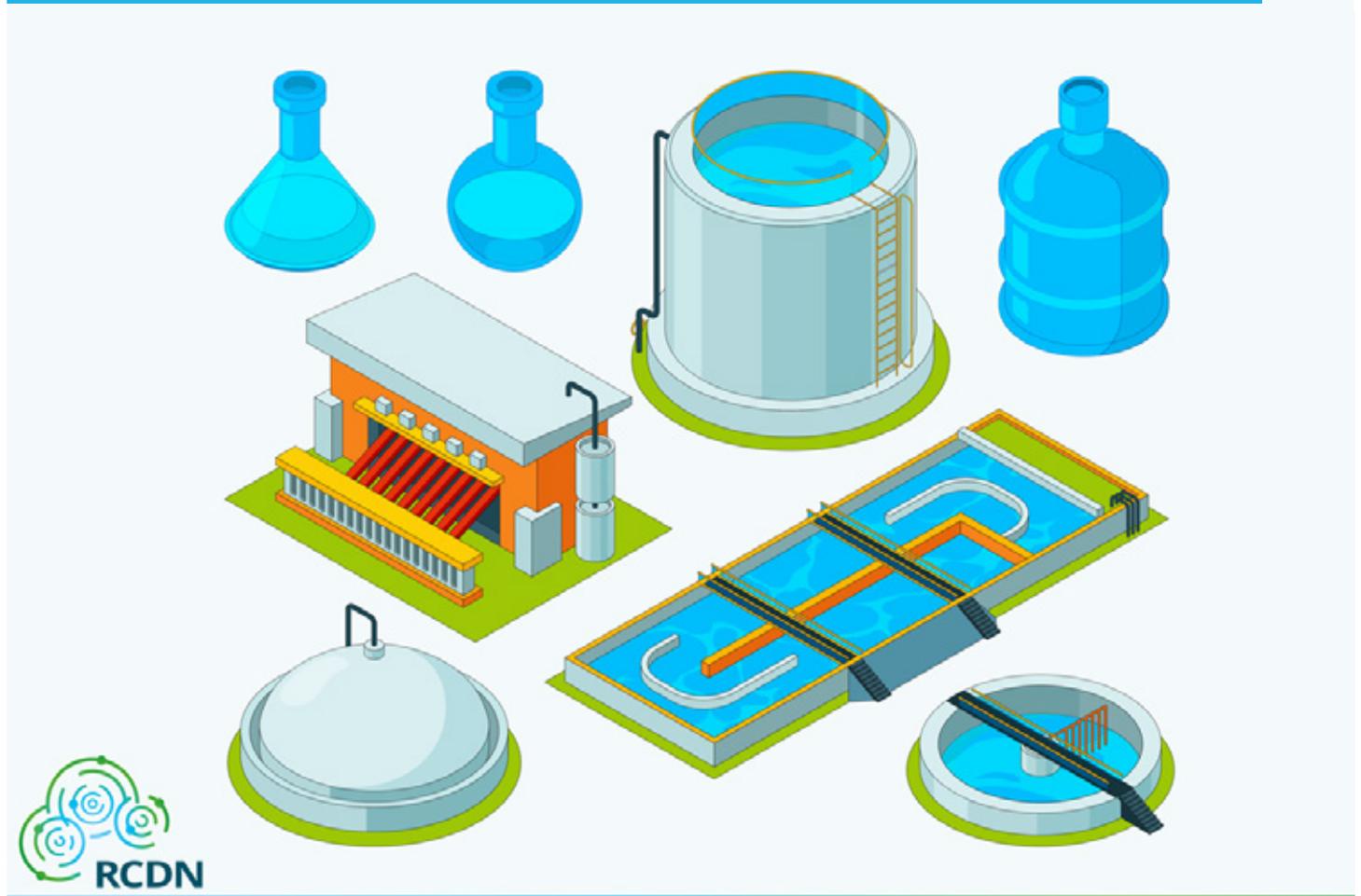


# ADKOM's bulletin

## Preparation of Training programmes for collection, drainage and treatment of wastewater for the employees of the public utility companies and municipalities through participation of ADKOM in the Regional Capacity Development Network (RCDN) for Water and Sanitation Services in South-East Europe



The Regional Capacity Development Network (RCDN) for Water and Sanitation Services in SEE is developing new programmes in the area of collection, drainage and treatment of wastewater in addition to the existing offer of trainings.

This area has been identified as emerging challenge in the Western Balkan region. The topic is in accordance with priorities of International Financial Institutions (IFIs) and the donors and at the same time it stimulates the collaborative approach among associations of municipalities and the associations of public utility companies (PUCs). The collection,

drainage and treatment of wastewater are undoubtedly the priority of this region. Evidence is shown by an advanced coordination between the IFIs and the donors on a regional level. In addition, the importance of the wastewater allows for a direct dialogue on a national and regional level (e.g. in terms of trends, experiences, policies etc.). This sector is of utmost importance for the associations of PUCs, as well as for the associations of municipalities, which means that the focus on the wastewater fosters immediate collaborative approach, which is one of the unique features of the RCDN as a regional network.

The pandemic caused by the COVID-19 virus stressed even more the importance of the municipalities and the PUCs in the delivery of water supply and sanitation services to the citizens. Also, certain research conducted in Switzerland, the Netherlands and other countries demonstrated traces of the virus in the wastewater collection and treatment systems, which creates possibilities in the future for establishment of early warning systems concerning the occurrence and monitoring of the virus.

The new RCDN training programme is particularly focused on this sector, because:

**(a)** There is a solid rationale:

- The process of preparation, development and implementation of capital infrastructure investments projects for collection, drainage and treatment of wastewater is characterised by lot of challenges, even failures.
- Currently, the focus of the municipalities and PUCs is mostly on the investment and construction works and the importance of the operation and maintenance (O&M) of wastewater treatment plants (WWTPs) is often neglected.
- Therefore, the municipalities and their PUCs face even more difficulties once the wastewater treatment plants are built, especially in the area of their O&M and sludge management.

**(b)** It is an opportunity:

- Over the past decade significant funds were provided in a form of grants, as well as credit support for the construction of the WWTPs by the national institutions, IFIs and the donors in all countries of the Western Balkans.
- The WWTPs are a good possibility for awareness raising and a good example for capacity development as they are based on a clearly expressed demand by the PUCs and the municipalities, which are specifically and complexly included in the infrastructure projects for collection, drainage and treatment of wastewater, and therefore confirm the need for trainings in this area.

RCDN conducted a detailed training needs assessment (TNA) in three steps by: (1) conducting a generic research on the assessment of the needs in the region, (2) visiting and interviewing the employees of the wastewater treatment plants in North Macedonia, mostly financed by SECO and EU and (3) organizing events for exchange of knowledge and experiences for further concretization and validation of the findings from the generic research.

The assessment identified a specific need concerning the following areas to be included in the training programmes for collection, drainage and treatment of wastewater:

- (a)** Introduction to the wastewater systems for the PUCs and the municipalities which are in the process of preparation, development and implementation of capital infrastructure projects and
- (b)** Strengthening the technical capacities of the PUCs for the

operation and maintenance of the wastewater systems in the municipalities that already have constructed wastewater treatment plants.

The TNA detected that there is insufficient transfer of knowledge and acceptance of responsibilities by the municipalities and PUCs during the implementation of the projects by the contractors responsible for the construction and implementation of the wastewater treatment plants, as well as the training of the personnel, in order to provide operation and maintenance of the plant on a long run.

Therefore the new training programmes developed by RCDN give priority to:

- a)** Capacity development of local wastewater experts as trainers and
- b)** Involvement of RCDN partner association (Associations of PUCs like ADKOM and Associations of municipalities) in order to be able to deliver independently all these programmes to their members and facilitate the transfer of knowledge.

The initial plan is to pilot the training programmes in 3 countries (Albania, Bosnia and Herzegovina and North Macedonia). This process is led by the consortium of consultants consisted of Holinger from Switzerland and UNA Consulting from Bosnia and Herzegovina, in coordination with the national partner associations, as well as the RCDN Project Implementation Team (PIT), and the German Agency for International Cooperation (GIZ) and the Swiss State Secretariat for Economic Affairs (SECO). Special support to the process is provided by the experts from the Swiss Water Association (VSA), as well as the German Association for Water, Wastewater and Waste (DWA).

As a member of RCDN, ADKOM takes active participation in the process and is responsible for the implementation of the activities in the country.

Currently, the partner associations of municipalities and PUCs, including ADKOM, work together on the preparation of a comprehensive set of 3 wastewater training programmes for the employees in the PUCs and the municipalities.

The target group for these programmes are: (a) Decision makers and managers in PUCs and municipalities (e.g. Directors and Technical Directors of PUCs, Managers of Technical Departments in the PUCs, Mayors, Managers of Utility Services Departments in the municipalities etc.) as well as (b) Technical operational staff in the PUCs and the municipalities (e.g. managers and engineers in the WWTPs, employees in the municipalities that work in this field, etc.).

Besides the content development for the training programs, crucial novelties would be the “capacitation of local staff” and “market orientation”. Both aspects contribute to their sustainability. The programmes include practical instead of theoretical instructions, which enables presentation of practical experiences, their transfer and application in real life situations.

In order to provide for capacitation of local staff, it is stipulated that the national associations of the PUCs and municipalities will nominate local experts who will be trained to become trainers. It is foreseen that at least half of the experts should come from the PUCs and/or municipalities. This would help to establish a group of trainers who could implement these programmes as part of the annual training programmes of the associations. In order to provide good coordination, the training coordinators in the national associations will be also included in the process.

The focus is put on the development of skills for facilitation and coaching of the group of trainers, as the experience so far demonstrated that the main bottlenecks appear after the expiry of the warranty period for the construction of the WWTP, when the contractor's agreement expires, and the need for maintenance of the plant starts to increase. Therefore special focus is put on training of local trainers who will be able to respond to these challenges.

The training programme will be implemented in accordance with the developed RCDN Quality Standards, as well as Quality Standards of the ADKOM Training center. The RCDN Quality Standards stress the orientation toward the partner associations (e.g. including the national associations in the development of the programmes in order to provide contextualization according to the specific situation in each country) and orientation towards the participants from the PUCs and the municipalities (e.g. flexibilities in adapting the programmes, facilitation of exchange and transfer of knowledge among the participants).

The three training programmes consist of different modules that include various topics and capacity development formats (e.g. trainings, peer exchange events, webinars, on-line exchange platforms, etc.).

According to the mapping prepared by ADKOM, there are 19 operational WWTPs in the country, out of which 10 were built in the period from 2015 to 2019, seven were built in the period 2000 – 2010 and two were built before 2000. Three of those plants have a capacity of 95,000 – 120,000 population equivalent (PE), eight have the capacity from 12,000 to 53,000 PE, and eight are smaller plants with capacity from 1,250 to 8,000 PE. Besides these plants, there are additional seven WWTPs, which for various reasons are not operational. According to the estimates over 80 Million EUR have been invested so far in the wastewater sector, and additional ten projects for collection, drainage and treatment of wastewater are in preparation, including the biggest project for construction of WWTP in Skopje in amount of 136 Million EUR.

Having in mind that the operation and maintenance of the WWTPs is not possible without adequately trained staff, the focus of the ADKOM training center in the forthcoming period shall be on creating a group of local trainers and implementation of the **Programme for strengthening the technical capacities of the PUCs for the operation and maintenance of the wastewater systems in the municipalities that have already built the WWTPs**. This is also a priority for the Swiss State Secretariat for Economic Affairs (SECO), which is one of the major donors of the wastewater treatment sector in the country and the Western Balkan region.

The purpose of the programme is to enable the participants to

assess various wastewater systems and to develop strategies for improvement of the current systems on organizational and practical level.

The specific objectives of the programme are: (1) to improve knowledge, skills, methods and tools of the PUCs for management with the wastewater systems and (2) to raise the awareness of the municipal staff and the management of the PUCs on the challenges of operation and maintenance of the wastewater systems and their role and responsibilities in providing services for sustainable collection and treatment of wastewaters for their citizens.

The target groups of the Programme are: (a) PUC technical personnel: technical director; expert personnel; members of the project implementation team/ project implementation unit; lab personnel and (b) employees of the municipalities and PUC management: members of the PUCs Management Board; managers and employees in the department/unit for utility services; Director and Financial director in PUCs.

The duration of the programme is adapted according to the needs of the target groups. **The Programme for the Technical Personnel of the PUCs** includes 5 modules i.e. up to 10 days of training allocated into 7 measures for a period of 9 months. The Programme includes: 1 webinar (0.5 days), 1 one-day and 3 two-day trainings and 2 one-day peer exchange.

The Programme covers the following topics: Introduction to collection, drainage and treatment of wastewater, as well as Introduction to operation and maintenance of WWTPs, technologies for wastewater treatment (basic and advanced course), Energy Efficiency and sludge management, as well as other relevant topics related to the operations of the WWTPs (communication with the public, safety at work place, public procurement).

**The programme for the employees in the municipalities and the PUCs' managers** is shorter and includes 1 module, i.e. up to 2.5 days of training, allocated in 3 measures in a period of 2 months. The programme includes: 1 webinar (0.5 day), 1 one-day training and 1 one-day peer exchange.

The Programme covers the following topics: Introduction to collection, drainage and treatment of wastewater, as well as Introduction to operation and maintenance of wastewater treatment plants.

The Programme is implemented by local trainers from ADKOM, who will be trained themselves as trainers, coached by the Consultant's experts.

According to the plan it is expected that the Training of Trainers shall be implemented in the period October-November 2020, and at the end of the year/beginning of next year the pilot implementation of the Programme is supposed to start in the country with participation of representatives from the PUCs and the municipalities.

The participants in the programme will benefit from:

- The transfer of knowledge from the local and international experts, adjusted to the needs of the country.
- Exchange of experiences and learning from the other participants in the Programme, e.g. through moderated group discussions
- Learning from good practices based on gained experiences, determined challenges, and lessons learned from the operation of the WWTPs
- The onsite and the virtual visits of the WWTPs with practical examples, guided by experienced experts.
- The possibility for continuous peer exchange with the other participants through an established on-line platform.

The interested PUCs and municipalities can get more information on the terms and conditions for participation in the Programme from the ADKOM's office.

The RCDN project is financed jointly by the Swiss State Secretariat for Economic Affairs (SECO), German Federal Ministry of Economic Cooperation and Development (BMZ), and is administratively embedded in the "Open Regional Fund for South-East Europe – Modernization of Municipal Services (ORF MMS)", implemented by GIZ on behalf of BMZ.

The Regional Capacity Development Network (RCDN) for Water and Sanitation Services in SEE includes 3 regional organizations: NALAS, IAWD и Aquasan Network in Bosnia and Herzegovina as well as 15 Associations of PUCs and Associations of municipalities from 6 counties from the Western Balkan region.

Enclosed are photos from the wastewater treatment plants in the Republic of North Macedonia:

### Wastewater treatment plant in Kichevo



### Wastewater treatment plant in Strumica





Wastewater treatment plant in Kochani



# PC Vodovod i kanalizacija – Skopje, public service in accordance with the citizen’s needs

Besides the regular activities concerning the main activity of the company, the everyday activities for improvement and enhancement of the water supply and sanitation network in the City of Skopje, the PC Vodovod i kanalizacija – Skopje aims at acting through socially responsible activities in accordance with the needs of the consumers and citizens of the City of Skopje.

The PC Vodovod i kanalizacija – Skopje as socially responsible company, besides the appeals for rational consumption of water and the eco messages displayed on the bills, which are part of the campaign for protection of the averment and the natural water resources implemented in collaboration with Pakomak, started an online campaign under the motto “Be responsible – act diligently”. Namely, the campaign aims at raising the public’s awareness for protection of the water supply system, protection of the natural spring Rasche; raising the public’s awareness on climate change and the consequences from such change on the environment and the natural springs, on the change of our behavior in terms of rational and diligent water consumption. The campaign pays special attention to the illicit connections as well as on the intuitive for the citizens to report such connections, which would lead to their disconnection from the network. This campaign also refers to the protection of the systems for draining of urban waste waters, i.e. the sewage system. The maintenance of the system for drainage of urban waste waters is extremely important for the community, for the sanitary and health protection, as well as for protection of the environment from pollution. The sewage system is not a waste depot. When disposing waste irresponsibly in the urban wastewaters drainage system, its functionality is disrupted and very often it causes spillage of the waste waters, which if not correctly treated may have harmful effects on the peoples’ health and the environment.

Concerning the wastewater treatment, it is our great please to announce that PC Vodovod i kanalizacija - Skopje has been managing in the past two years with the wastewater treatment plant Volkovo, and currently we are working on the gradual realization of the announced capital project for the wastewater treatment plant Skopje.

The signing the agreements among the Government of the Republic of North Macedonia, the European Investment Bank and the European Bank for Reconstruction and Development market the finalization of the fundraising process for the Project for Construction of a wastewater treatment plant for the City of Skopje. PC Vodovod I kanalizacija – Skopje is included in the implementation stages of this Project (with a value of 136,000,000 Euros), which is another proof of the Company’s efforts for enhancing the living conditions of the citizens as well as for investing into high-quality environment.

Currently there is a deadline for submitting applications for pre-qualifications for selection of the most successful bidder for design and construction of the wastewater treatment plant for Skopje. So far, around 50 companies expressed their interest and picked up the application documentation. We invite all companies that meet the qualifications to submit their applications, and they can get the prequalification documents in the Project Unit office, in the head office of PC Vodovod I kanalizacija – Skopje on Lazar Lichenoski Street No.9, or on [wwtp-project@vodovod-skopje.com.mk](mailto:wwtp-project@vodovod-skopje.com.mk).



**ЗАШТИТИ ГО ВОДОСНАБДИТЕЛНИОТ СИСТЕМ**  
БИДИ ОДГОВОРЕН, ОДНЕСУВАЈ СЕ СОВЕСНО!

ШТО ВЛИЈАЕ?	КАКО ВЛИЈАЕ?	ЗАПОМНИ:
<ul style="list-style-type: none"> <li>Дивите приклучоци</li> <li>Нерационалната употреба на водата</li> <li>Климатските промени</li> <li>Неискористените алтернативни извори</li> </ul>	<ul style="list-style-type: none"> <li>Прекршок и злоупотреба на системот</li> <li>Го нарушува нормалното водоснабдување</li> <li>Доведува до намалено ниво на вода во Расче</li> <li>Водата за пиење се троши како техничка</li> </ul>	<ul style="list-style-type: none"> <li>Можеш да пријавиш див приклучок.</li> <li>Можеш разумно и рационално да ја користиш водата.</li> <li>Можеш да се грижиш и да ја заштитиш природата.</li> <li>Можеш да бидеш совесен.</li> </ul>



**ЗАШТИТИ ГО КАНАЛИЗАЦИСКИОТ СИСТЕМ**  
БИДИ ОДГОВОРЕН, ОДНЕСУВАЈ СЕ СОВЕСНО!

ОДРЖУВАЊЕТО И ЗАШТИТАТА НА СИСТЕМОТ ЗА ОДВЕДУВАЊЕ НА УРБАНИ ОТПАДНИ ВОДИ СЕ ЗНАЧАЈНИ ЗА:	НЕОДГОВОРНОТО И НЕСОВЕСНО ОДЛАГАЊЕ НА ОТПАД ВО СИСТЕМОТ ЗА ОДВЕДУВАЊЕ НА УРБАНИ ОТПАДНИ ВОДИ:
<ul style="list-style-type: none"> <li>Проверен третман на отпадни води</li> <li>Непречена функционалност на пречистителните станици</li> <li>Застапувањето и општеството</li> <li>Санитарната и здравствена заштита</li> <li>Заштита на животната средина од загадување</li> </ul>	<ul style="list-style-type: none"> <li>Ја нарушува неговата функционалност</li> <li>Ја попречува функционалноста на пречистителните станици</li> <li>Предизвикува излевање на отпадните води</li> <li>Претставува опасност по здравјето</li> <li>Предизвикува загадување на животната средина</li> </ul>

## The municipality of Probishtip is the first to compost the waste



Probishtip is the first municipality in the country that started to compost the waste. Eighty families from the Kalnishte country in Probishtip as well as from the central town area started to compost the waste, for which purpose there are two composters in place. The Project “Biootpad (Bio-Waste)” was realized with European funds. The director of the Public Utility Company “Nikola Karev” in Probishtip, Nenad Pavichevikj, said that 80 families received their bins with chips.

– Our vehicle with installed GPS will collect the waste and bring it to the composters, where as final product we will have the compost, which the PUC will use for maintenance of the green areas, says Pavichevikj.

The Mayor of Probishtip, Dragan Anastasov noted that the interest of the citizens for such selection and waste composting is big, and according to the Mayor the benefits of the project are yet to be observed.

–This is a very unique project and it includes part of the population and part of the hospitality segment in the municipality, included on the selection of organic waste, which in few years time will become our everyday practice. The preservation of the environment is one of the first chapters to be opened in process of bringing our society closer to the European Union, said Anastasov.

The Project “Pay as much as you create waste” – is financed by the BalkanMed Program. The Project is implemented on the territory of three countries: Republic of North Macedonia, Republic of Greece and Cyprus.

– The Budget for our municipality is 277,758 out of which 214,288 are used for procurement of specific equipment, i.e. two composter units, modernization for the waste disposal vehicle of the PUC “Nikola Karev”, with a kilometrage meter and a measuring device for the amount of waste received by each family, as well as containers and bins for the participants on the project, i.e. 80 families and two larger containers for the hospitality entities, said Anastasov.

PUC “Nikola Karev” is the beneficiary of the equipment and it is already in use by the company. The Mayor of Probishtip stressed that the citizens of Probishtip are the only ones in the country to receive such equipment from the EU funds.

– Also, we are the first municipality in the country to have precise data on the quantities of waste created per household. The evaluations from the studies on this Project show not only economic

but also benefits in the preservation of the environment, which is out priority, said Anastasov.

The Project “Biootpad” is executed in collaboration with the University “Goce Delchev” – Shtip. This is a 17 million denar investment from the IPA funds for cross-border cooperation.

Source: <https://sitet.com.mk/jp-vodovod-skopjani-pijat-kvalitetna-voda>



## PUC “KOMUNALNA HIGIENA” Skopje introduces new features for the service robust waste collection from the households

PUC “Komunalna higiena” Skopje introduced new features for the service robust waste collection and transport from the households. The citizens of Skopje who need to dispose of their old furniture and unusable electronic and electrical appliances, can order this type of service on the toll free number 0800 222 33, where a specialized vehicle from PUC “Komunalna higiena” will collect and transport the waste. With the new features of the service, the citizens will be able to choose the option for their

robust waste to be collected directly from their homes, regardless if it is an individual or collective household.

The service for robust waste collection is charged in accordance with the Pricelist for additional activities of PUC “Komunalna higiena”, adopted by the Council of the City of Skopje, on 28.05.2020.

Source: <http://www.khigiena.com.mk/content/?id=3336>



## Activities implemented in the period May – August 2020 by PUC “Ilinden” – Ilinden

New equipment was procured for the purposes of providing quality and efficient utility services for the citizens and the economy, such as:

- One special vehicle for collection and transport of solid waste, with capacity of 8 m3.
- 20 metal containers of 1.1 m3;
- 20 plastic bins of 240 liters;
- 250 plastic bins of 120 liters;
- 2 trimmer mowers;
- 1 motor saw.



- The street lighting network was improved and modernized in length of 1,295 m., where 36 new sets of street lights were installed and 594 lights were replaced with new LED lights.
- With the project “Green against pollution” a total of 20,000 m2 of public areas on several location in the Municipality were landscaped;



- In cooperation with “PAKOMAK” 10 plastic containers were provided for selection of waste from glass packaging, and allocated on several location in the municipality.



Prepared by  
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Director,  
Igor Filipovski

## PC Vodovod: The citizens of Skopje drink high quality water



### Неделен извештај за квалитетот и безбедноста на водата за пиење

контрола во периодот  
од **29.06.2020** до **03.07.2020**

In order to provide improved level of information to the citizens, the PC "Vodovod I kanalizacija" Skopje publishes the weekly report on the quality and safety of the drinking water, as received from the analyses conducted by the Sanitary Control Sector, which is actually the first laboratory in the country accredited with the standard ISO 17025:2018.

In the period from 29.06.2020 to 03.07.2020 the Sanitary Control Sector took 899 samples for microbiological analysis of the drinking water from 56 measuring points in Skopje. According to the received results from the analysis, all samples MATCH the Rulebook on Safety and Quality Requirements of the drinking water (Official Gazette of RM, No.183/18).

Source: <https://sitetel.com.mk/jp-vodovod-skopjani-pijat-kvalitetna-voda>