



YOUNG WATER
PROFESSIONALS
GERMANY



YOUNG WATER
PROFESSIONALS
KOSOVO

IWA YOUNG WATER PROFESSIONALS BUILDING BRIDGES ONLINE EVENT SERIES

Best practice – industrial waste water

Tuesday, 28 June 2024 2:00-3:30 PM (Central European Time)

AGENDA (Duration 1.5 hrs)

Introductions

Guest Speaker Kosovo: **Egzona Bejtullahu** (Project Manager)

Czech Republic: **Nikola Salova** – Specialist, Prague

Guest Speaker Germany: **Martin Tashi** – Engineer Univ. Tirana

Networking Discussion



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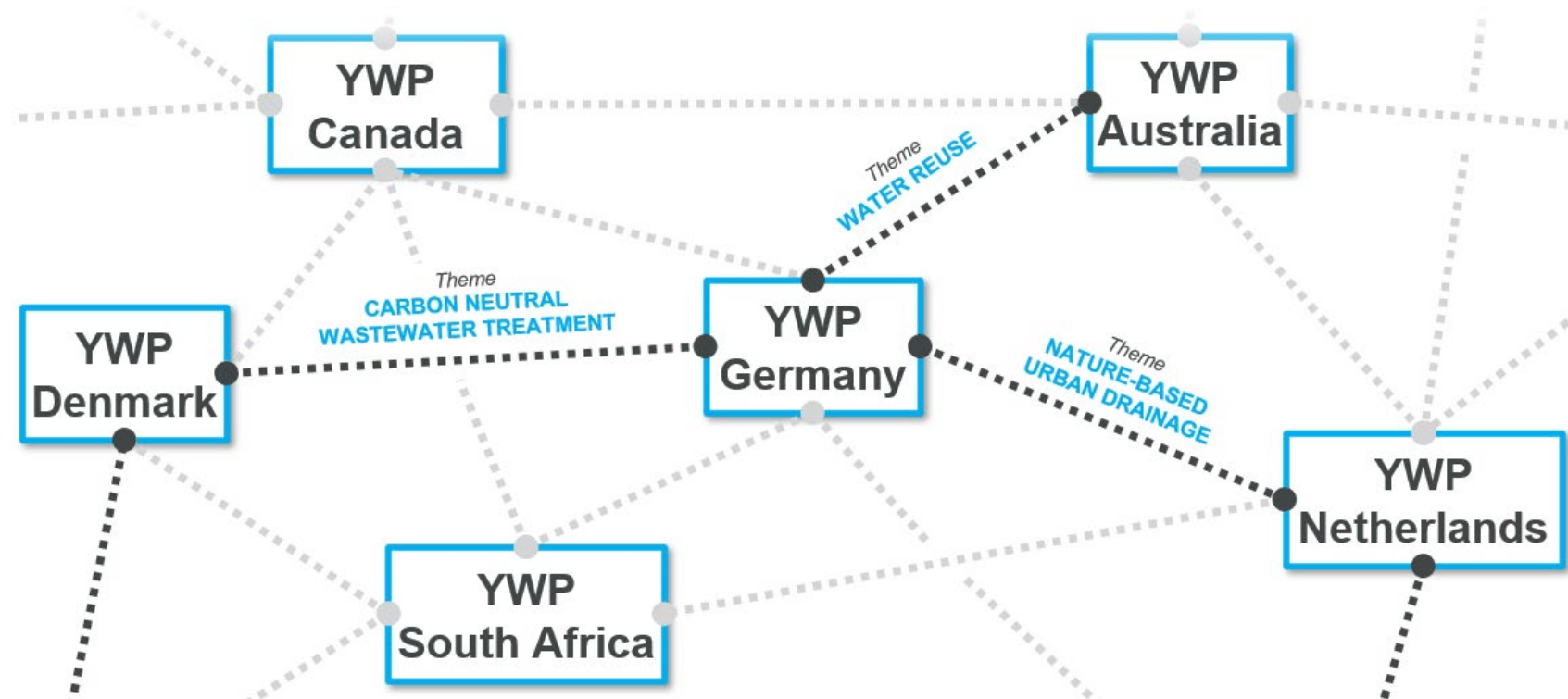


<https://ywp.cz/cs/kontakty>

BUILDING BRIDGES ONLINE EVENTS

Concept in a nutshell

- International Roundtables part of IWA endorsed **Building Bridges Online Event Series**
- Regular get-togethers connecting YWP across the globe in **bilateral dialogue**
- Platform to network and **engage over a topic** relevant to both countries
- Platform **empowering YWP** to present insights and to **learn** from peers



INTRODUCING OURSELVES!

JUNGE DWA (YOUNG DWA)

Connect - Roundtables

Exchange - Network Meetings

Grow - Circles & Inclusion

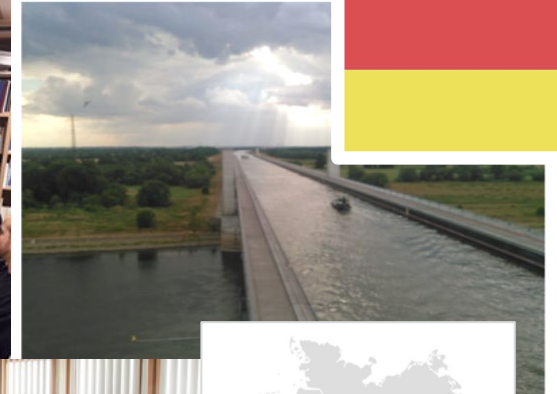
international@junge-dwa.de



<https://en.dwa.de/en/jungedwa.html>

DWA

Klare Konzepte. Saubere Umwelt.



INTRODUCING OURSELVES!

IWA YWP GERMANY (YWPGER)

We connect (young) water professionals in Germany with the world, and the world with Germany.

- Organisation of **roundtables** & network events
- **Publications** (national & international)
- **Representing** GER abroad within IWA events and at international conferences
- **Connecting** with other IWA chapters

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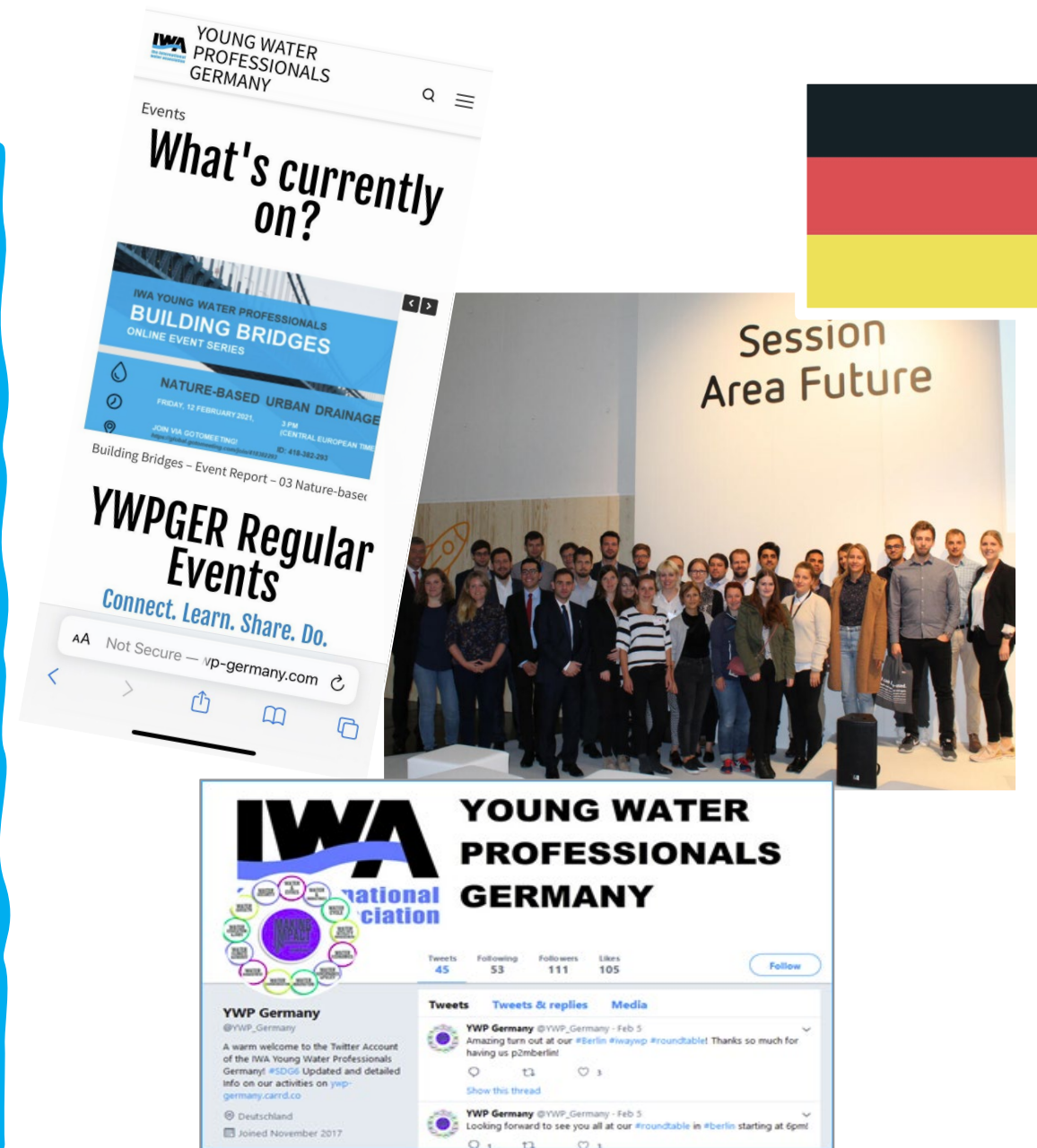
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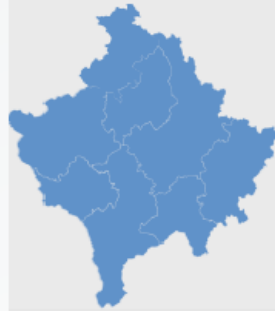
ABOUT US



Water and Wastewater Works Association of Kosovo (SHUKOS) is a non-for-profit organization established by 7 Kosovo's Regional Water Supply and Sewerage Companies (RWCs) in 2001.



SHUKOS has its own managerial and operational bodies. The highest body is the Assembly, followed by the Board of Directors. While the operational level consists of the Director and Deputy Executive Director, Training Manager, Finance and Project Manager



SHUKOS PRODUCTS



VISION AND MISSION



To promote and protect the interests of its members, serving for the benefit of RWCs, consumers and institutions, with the aim of achieving high standards of water and sewerage services in Kosovo.

MISSION



Invest time and resources to build awareness and attract young generations to develop a career in the water sector.

MISSION OBJECTIVE



SHUKOS STRONG VOICE OF IT'S MEMBERS

VISION

SHUKOS PRODUCTS



SHUKOS SUCCESS STORIES

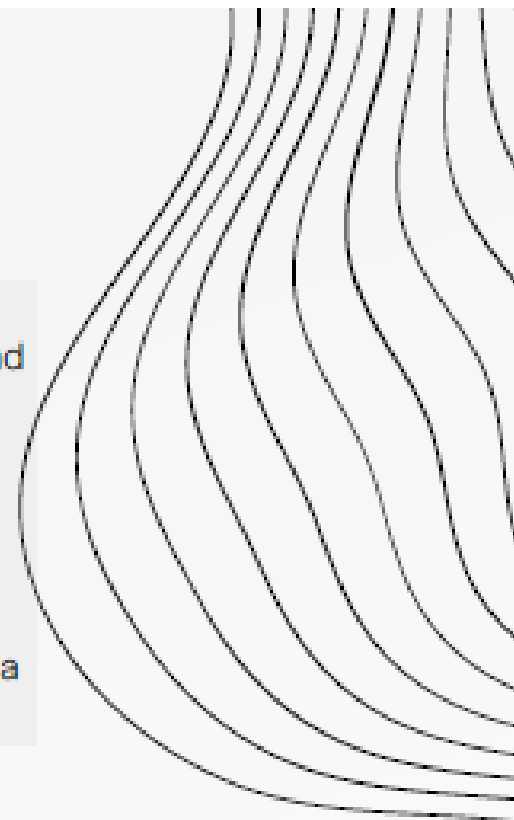


IT'S OFFICIAL!

We are now a YWP chapter within the International Water Association (IWA).

The **Young Water Professionals in Kosovo (YWP-K)** is an organization established on **November 5, 2013**, under the leadership of **SHUKOS** and with the initial financial support of the **World Bank**. Operating as a volunteer group for several years under the SHUKOS umbrella, YWP-K has continuously evolved to fulfill its mission of empowering young professionals in the water sector and contributing to the sustainable management of Kosovo's water resources.

In addition, since September **2023**, **YWP-K** has proudly joined the **International Water Association**, expanding our reach and network to a global level.



SHUKOS | SHUKALB
**Neighborly
COOPERATION**
Balkans Joint Conference and Exhibition



12th Balkans Joint Conference and Exhibition to be held on 5 – 7 November, 2024, in Prishtina, Kosova, at Emerald Hotel.
The theme of the Conference “**Neighborly Cooperation: Promoting Peace through Transboundary Water Management**”, is inspired by World Water Day 2024, and highlights the pivotal role water plays in fostering peace and stability. Greater Balkans Region, the Conference consistently provides a dynamic platform for water professionals, policymakers, and industry experts to convene.

GUEST SPEAKERS

YWP Kosovo/ Czech Republic/ Germany

- **Kosovo:** Ylberine Baliu – Project Manager, IADK
- **Czech Republic:** Nikola Salova – Specialist, Prague
- **Germany:** Martin Tashi – Engineer, Univ. of Tirana

GUEST SPEAKERS

YWP Kosovo/ Czech Republic/ Germany

- **Kosovo:** Ylberine Baliu – Project Manager, IADK

Challenges and Solutions for Industrial Wastewater Treatment in Kosova

Building Bridges - Online Event Series

Egzona Bejtullahu
IWA YWP-Kosova
Prishtina, 2024



Challenges in Water Management in Kosova

Kosovo is one of the poorest countries in Europe in terms of clean water sources per capita.

Millions of euros are spent to clean water for public supply networks.



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Ineffective Sewerage Networks

Sewerage networks often discharge directly into water bodies.

- Many sewerage systems in Kosovo lack proper endpoints and discharge untreated wastewater directly into rivers, leading to significant water pollution, impacting both ecosystems and human health.

There are few sewage treatment plants.

- There are a limited number of sewage treatment plants across the country.
- We have 3-4 main wastewater treatments in some main municipalities, and others are in process.
- Many municipalities do not have any treatment facilities, leaving large areas without proper wastewater management.

Infrastructure Challenges:

- Aging infrastructure and lack of investment in some municipalities hinder the development and maintenance of effective sewerage systems.



Industrial Pollution

Major water polluters include untreated industrial discharges.

Legislation sets limits on industrial wastewater discharges into water bodies.

Compliance with these limits is mandatory but poorly implemented.



Utilizing CFD in Industrial Wastewater Treatment

Applications in Industrial Wastewater Treatment:

- **System Design:** CFD aids in the design and optimization of treatment plants, ensuring efficient and effective operations.
- **Process Optimization:** Analyzes and improves processes like mixing, aeration, and sedimentation.
- **Predictive Analysis:** Models the behavior of pollutants and treatment chemicals, allowing for proactive adjustments.

Legislative Framework

Law No. 03/L-043 for Integrated Pollution Prevention and Control

This law is the main instrument to prevent water pollution from industrial discharges.

Effective implementation of the law can prevent untreated industrial discharges into water bodies.

Challenges include insufficient experience, inspection, and staffing in responsible institutions.



Importance of Compliance

- Compliance with pollution prevention laws is crucial.
- Adequate resources and training are needed for enforcement.
- Improved inspection and monitoring can enhance compliance.



Steps Forward

Strengthening regulations and enforcement.

Investing in sewage treatment infrastructure.

Enhancing capacity and resources for responsible institutions.

Raising public awareness on water pollution issues.



Taking Action

- Urgent need for collaborative efforts to address water pollution.
- Stakeholders must work together to improve water/wastewater treatment practices.
- Protecting Kosovo's water resources is vital for public health and environmental sustainability.





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GUEST SPEAKERS

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- **Czech Republic:** Nikola Salova – Specialist, Prague

Wastewater management in Czech Republic

June 28th, 2024

IWA YWP Building Bridges
- online event series

Nikola Salová

Comittee member, IWA YWP CZ

Process engineer, Prague water supply and sewerage company (PVK)

ywp.cz



**Pražské vodovody
a kanalizace**

Water in Czech Republic

„Roof of Europe“

- North Sea basin
 - The Elbe river
- Baltic Sea basin
 - The Odra river
- Black Sea basin
 - The Danube river

- 21 dams larger > 2,5 km²
- Vltava cascade – 9 dams



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Water supply and sewerage in Prague

100 % of population supplied with water

3 water treatment plants:

- WTP Želivka
 - 63 %
- WTP Káraný
 - 25 %
- WTP Podolí
 - 12 %



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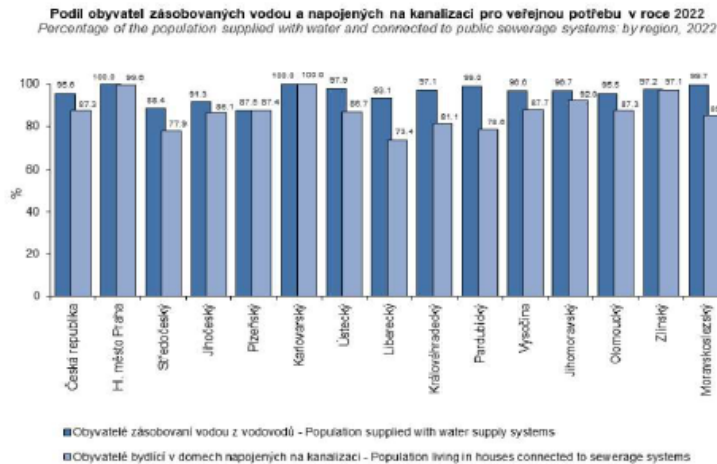
Water supply and sewerage in Czech Republic

95.6 % of population supplied with water

87.3 % of population connected to public sewerage systems

Water treatment plants: 2,583

Wastewater treatment plants: 2,915



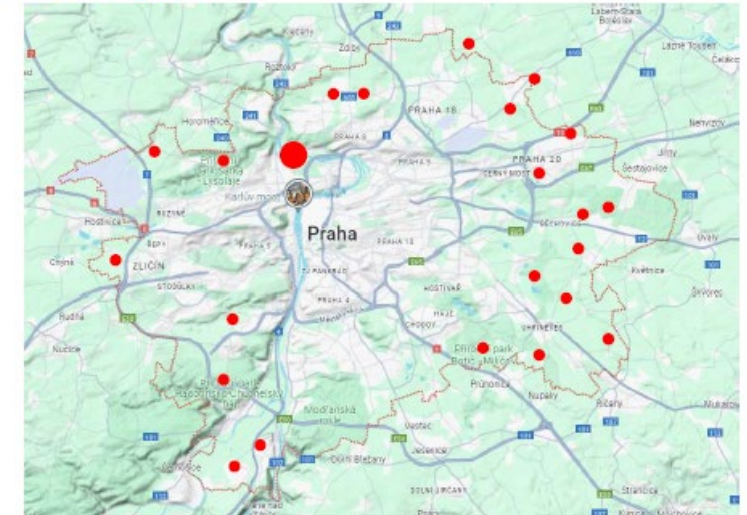
Wastewater in Prague

Central Wastewater Treatment Plant
93 % of wastewater
1,600,000 PE

+ 22 branch wastewater treatment plants
7 % of wastewater
300 – 25,000 PE

99.6 % of population connected to public sewerage systems

length of the sewer network:
3,904 km



Sewerage Regulations

- Sewerage Regulations with outflow parameters in contract
 - might require industrial wastewater treatment plant before sewerage
- Enshrined obligations to report changes in technology and production capacity to sewer operators
- Clearly specified places for control sampling
- Inspections:
 - regular inspections of large entities
 - small entity spot checks
- Inspections and monitoring of the sewage network in the event of a problem with the WWTP due to the quality of wastewater at the inflow, tracing the source and arranging for remediation



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Old Wastewater Treatment plant

- mechanical treatment
- National Historic Landmark
- Tours and events



Central Wastewater Treatment Plant in Prague

Old Wastewater Treatment plant:

- 1906

Existing Water Line:

- 1968
- 800,000 EO

New Water Line:

- 2018
- 800,000 EO



Sludge management

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CWWTP: Existing Water Line

- mechanical and biological treatment
- sludge management with anaerobic digestion
- inflow max: 4,1 m³/s



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CWWTP: New Water Line

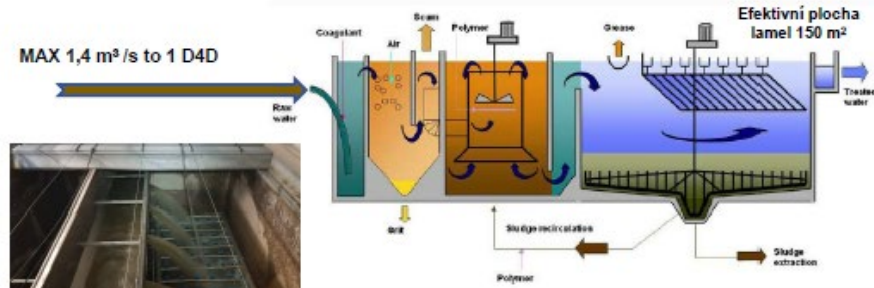
- mechanical, biological and tertiary treatment and UV lamps
- sludge management with anaerobic digestion (common with EWL)
- inflow max: 4,1 m³/s + 3,0 m³/s



CWWTP: New Water Line

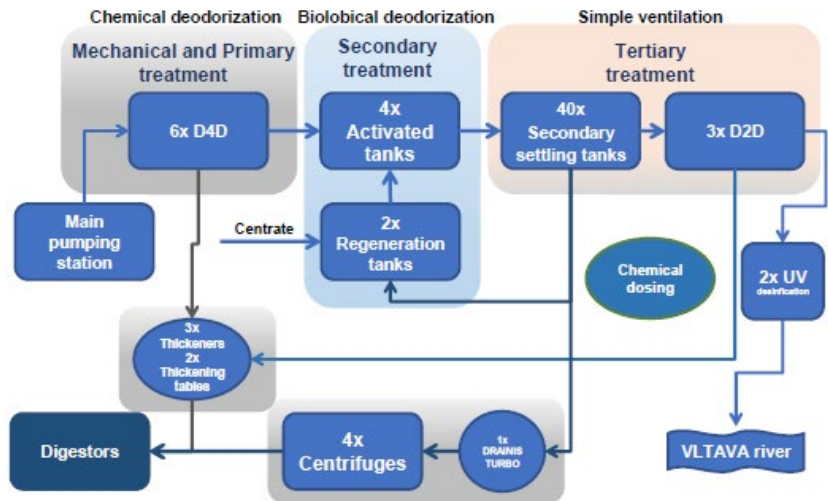
- 1) Grit
- 2) Grease
- 3) Flocculation
- 4) Sedimentation

- Max. kcapacity 7,1 m³/s
- Chemicals are added during rain (flow over 3,375 m³/s)
- 1 tank volume: 3 441 m³



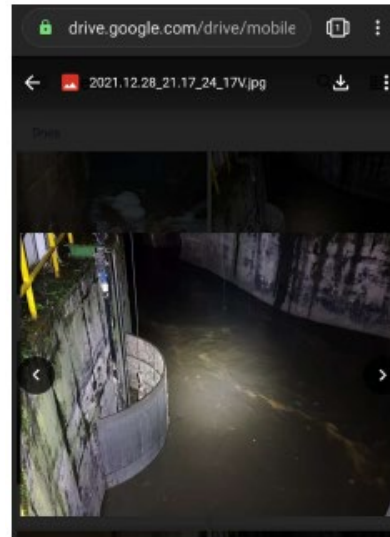
Empty D4D tank

CWWTP: New Water Line



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PVK Experience - „Sewerage detective“



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Thank you for your attention!

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GUEST SPEAKER

YWP GERMANY



- **Martin Tashi**
Experienced practitioner, Engineer from University of Tirana



IWA YOUNG WATER PROFESSIONALS

BUILDING BRIDGES

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THANK YOU
FOR YOUR PARTICIPATION