

The WaterMan project

Stormwater recycling for fountain operation and greenery irrigation

Jānis Blūms

Saldus Municipality



The problem to be solved in the project



*The Ciecere River flows through the municipality and is its main drainage point.

*Saldus is faces both periods of drought and recurring floods, particularly in the town centre, which lies lower than the surrounding areas and lacks sufficient water reservoirs to absorb excess water from heavy rainfall or rapid snowmelt.



Sometimes this happens...

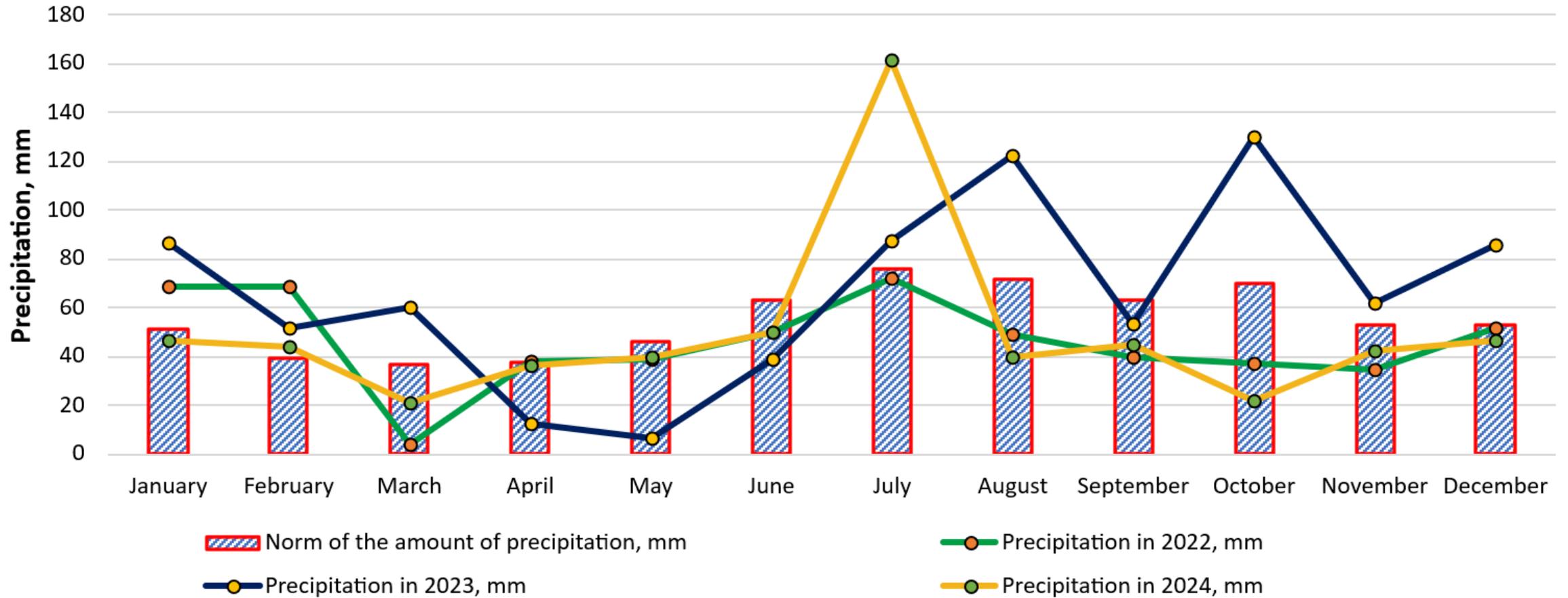


Floods in summer 2025

Flooding continues. Rainwater that should have been stored in the underground reservoir is currently inundating the area.



Precipitation in City of SALDUS from 2022 - 2024



Prepared by Saldus Utility Services Ltd.

Project progress

- Geological research and rainwater analysis.
- Development of the project vision.
- Preparation of technical documentation.
- Educational and informational activities.
- Updated information on the stand next to the Tourism and Information Centre.
- Together with the Kurzeme Planning region, a conference was organized , and projekt partners were hosted in Latvia.
- The filming process for the story film is currently taking place.



Rainwater analysis 2023/2024



16.2-182 mg/l

Total suspended solids

74.9- 130 μ S/cm

Conductivity

$2.2-3 \times 10^4$ CFU/1ml

Total Microorganism Count at 22°C

$4,2 \times 10^2$ CFU/1ml

Total Microorganism Count at 37°C



1,1* 1000

Escherichia coli (CFU/100 ml)



3,8* 1000

Intestinal enterococci
(CFU/100 ml)



not detected

Petroleum Products



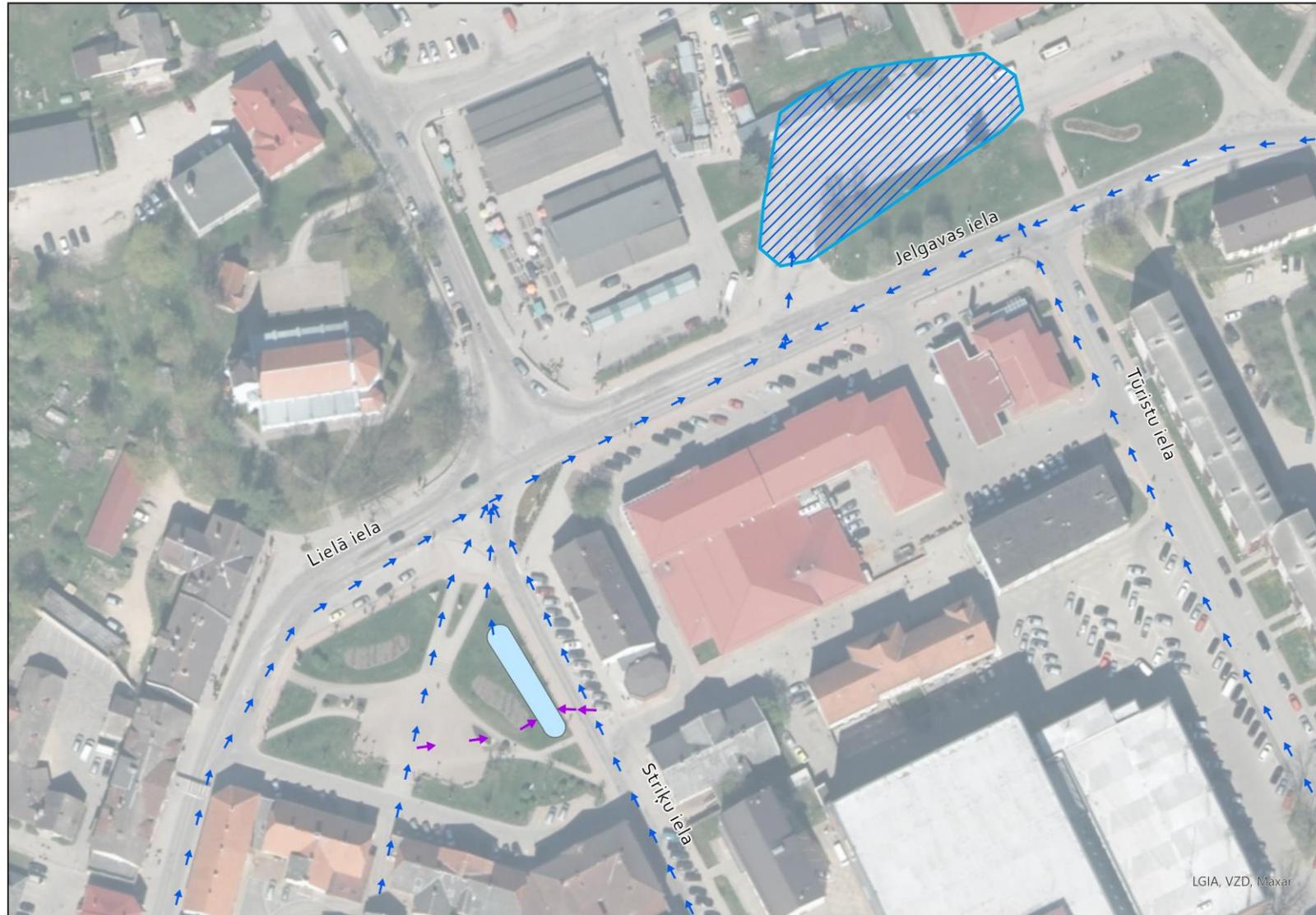
pH

6,6 -8,1

P total: < 0.10

N total: 1-2.8

COD (Chemical
Oxygen Demand): **< 30**



Preparation of technical documentation- Multifunctional use of the Fountain

The educational touch screen will be located here



The underground rainwater reservoir (90+10 m³) will be located here

90 m³ rainwater reservoir

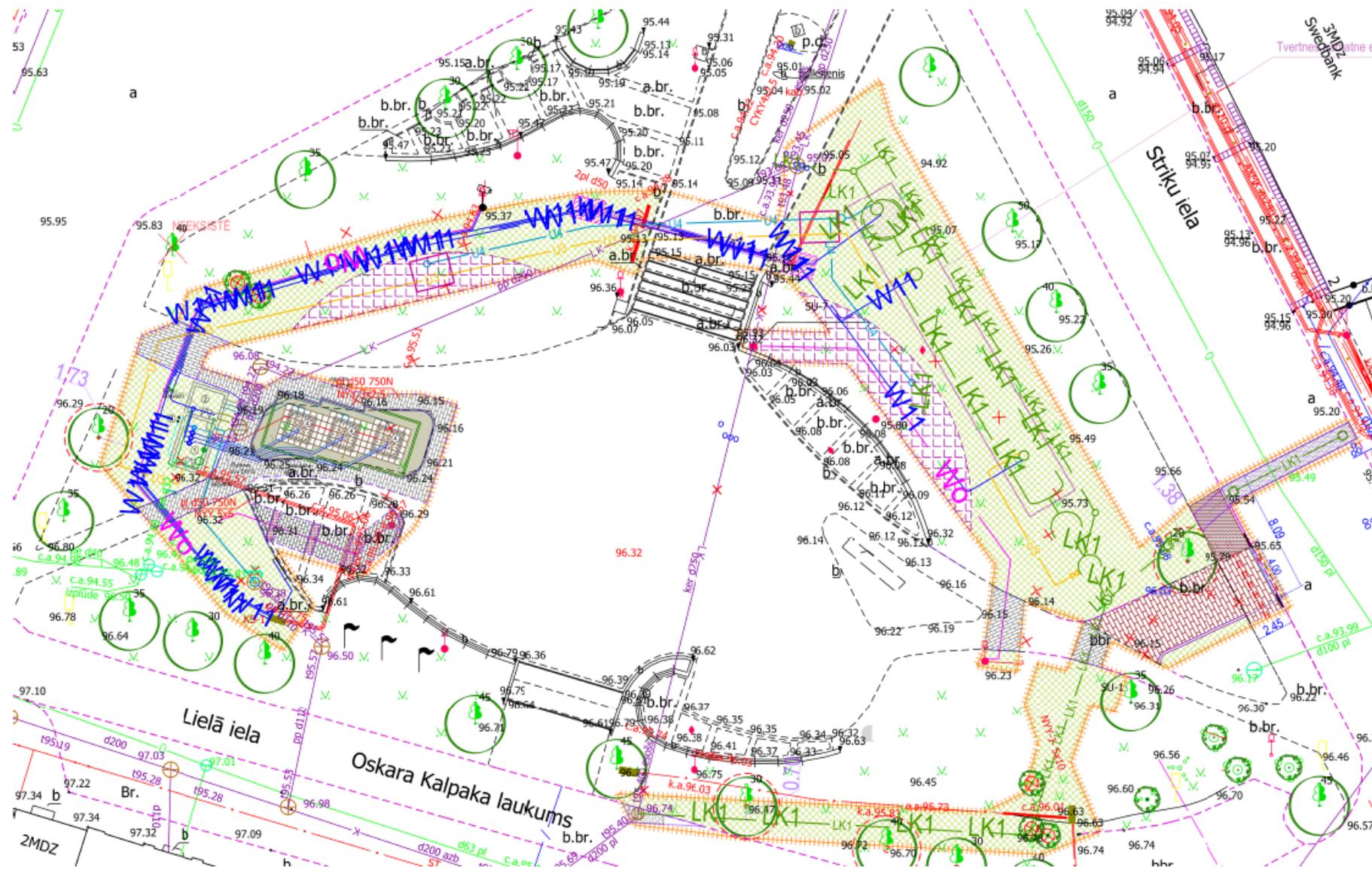
Fountain operation

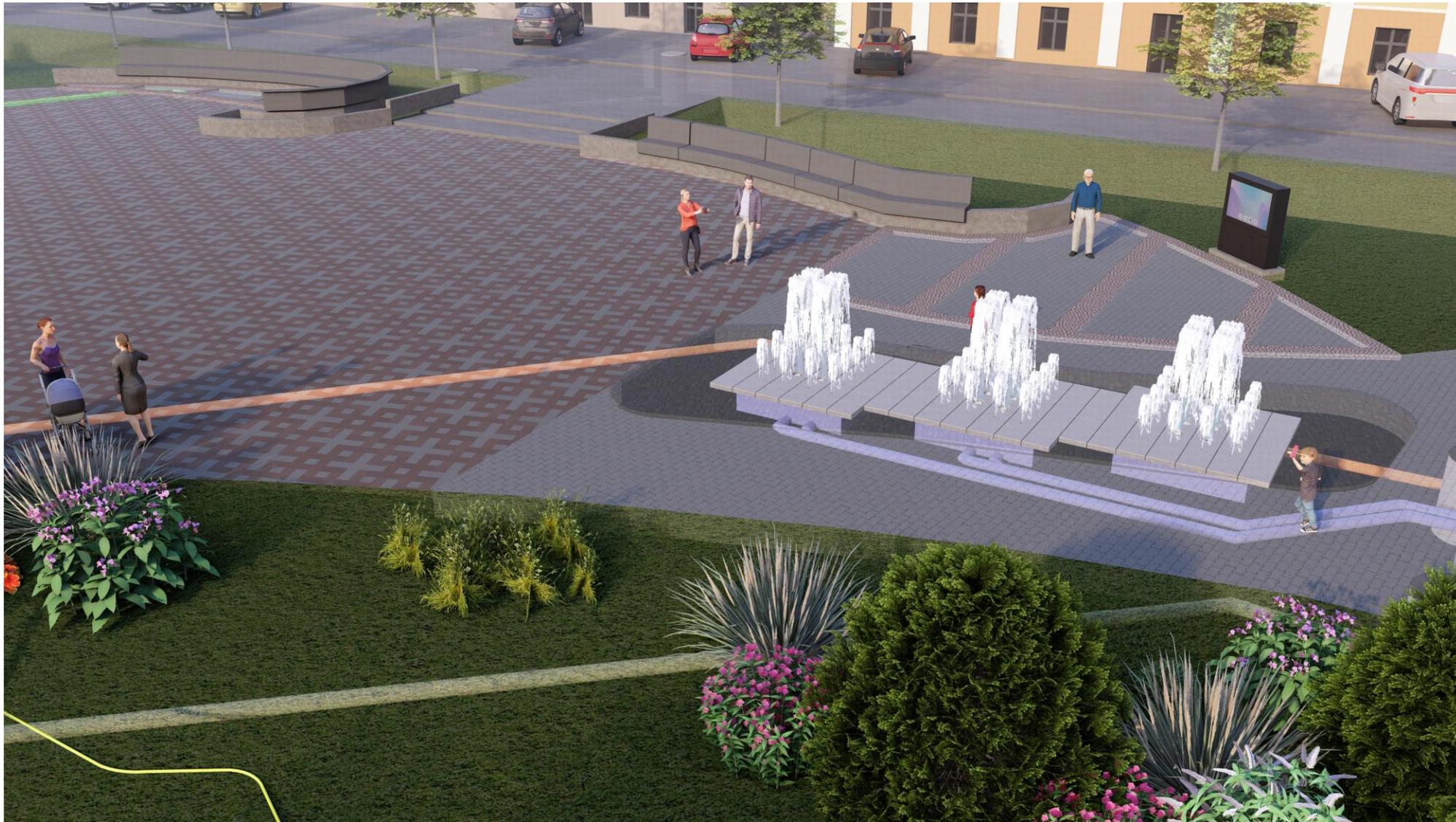
Watering of greenery

The fountain will be located here

Street watering (in spring)

Connection points for greenery watering (located in wells)





Developed by LLC
Livland Group

Collected rainwater treatment

Water Quality Requirements:

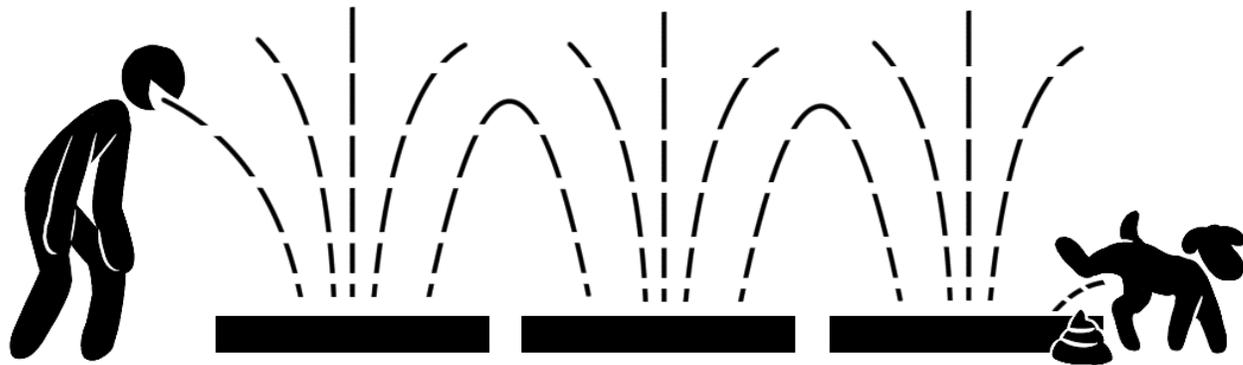
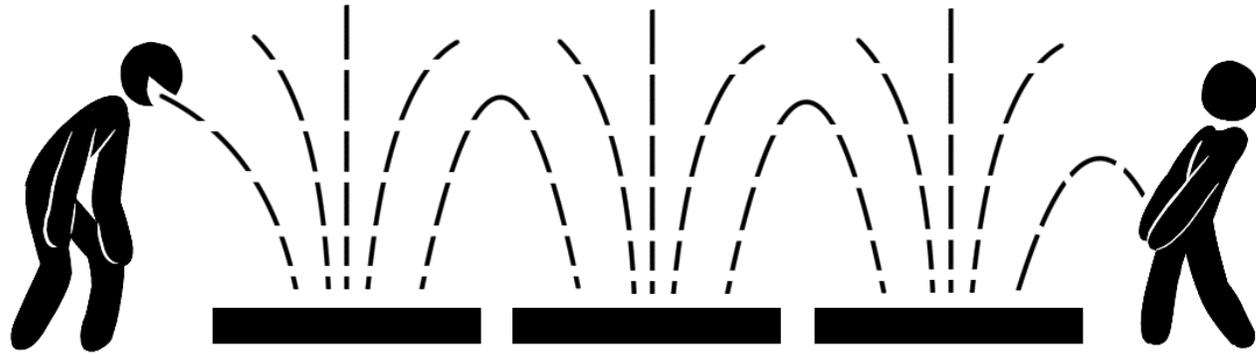
- pH level: 7.2 to 7.6
- Total water hardness: 8° to 15° dH (1.4 – 2.3 mmol/L)
- Chloride content: max 250 mg/L

- ➔ Cleaned from coarse impurities
- ➔ Separator for Sand and Oil Products
- ➔ Water Preparation Equipment Unit

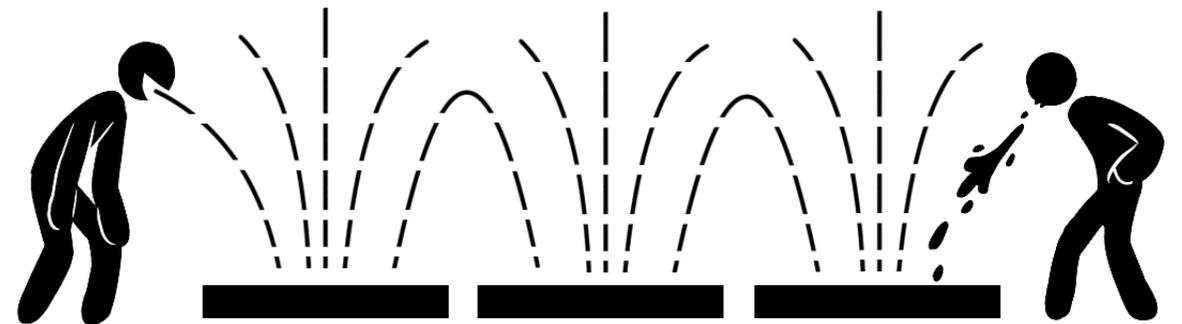
2 UV radiation lamps have been installed in the water treatment unit to prevent bacterial contamination

Done if construction works are carried out



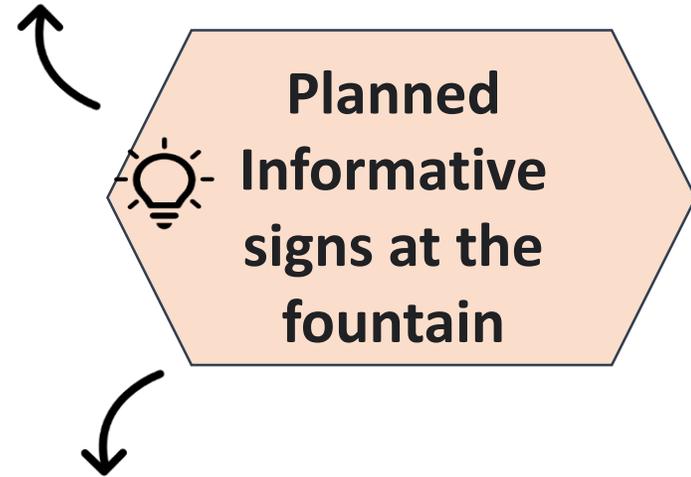


Attention! The water may be
contaminated!
DO NOT DRINK!



*Installed if construction
works are carried out*

Developed by LLC Livland Group



Planned Fountain Monitoring in the Technical Documentation

Installed if construction works are carried out

Damage Signal: Alerts in case of damage or malfunction.

Water Metering Devices: Ultrasonic water meter with data transmission capability. Reflects seasonal water consumption (data updated daily and stored in a database). Water used for irrigation will be recorded separately.

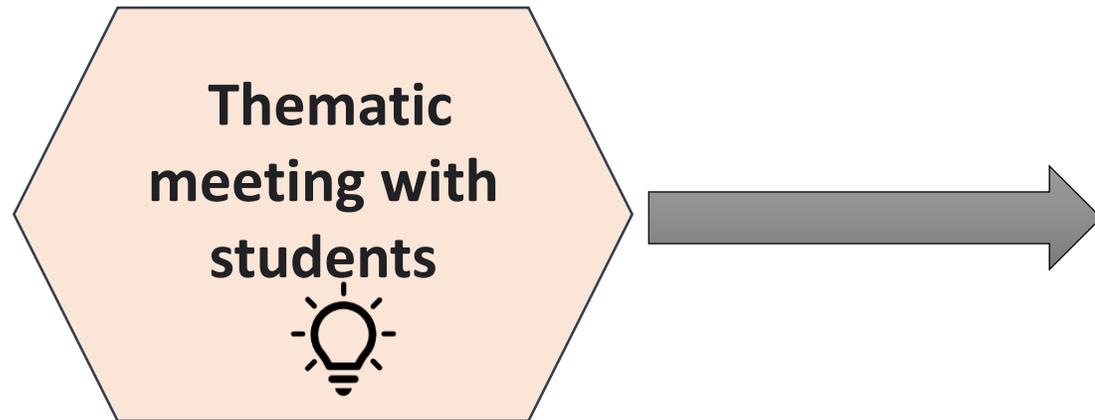
Tank Level Sensors: Informative graphics display level changes over time. Includes a level measurement device.

Data will be displayed on a unified platform with options for transmission to tablets and third-party systems.

Educated and Informed Society

May 14, 2024

EDUCATIONAL AND INFORMATIONAL ACTIVITIES IN SALDUS



Two of the largest schools in Saldus:

Topics Covered: *Climate change, Water reuse practices, Planned activities within the project*

Saldus Elementary School participants: 93
Saldus Secondary School participants : 84

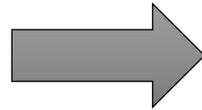


Educated and Informed Society

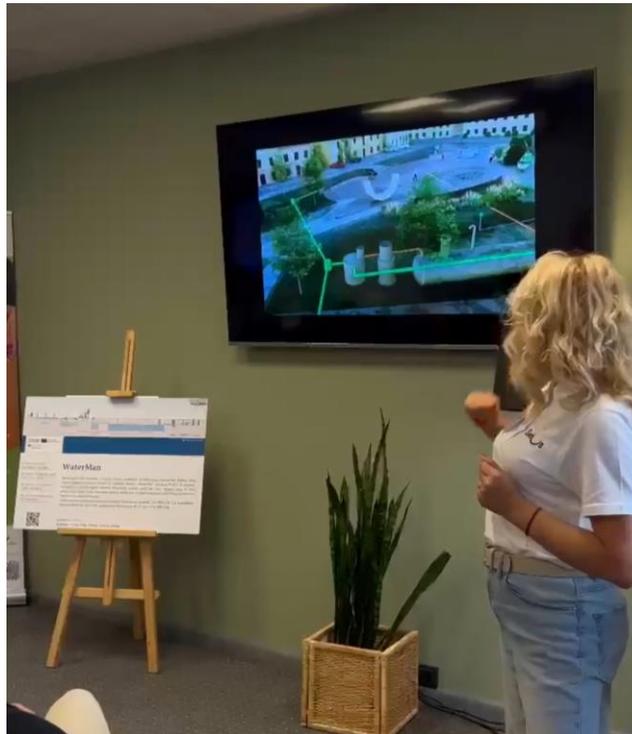
September 27, 2024

EDUCATIONAL AND INFORMATIONAL ACTIVITIES IN SALDUS

Thematic meeting
with Saldus
residents



Informative event about
four projects implemented
in Saldus Municipality.
One of them is WaterMan.



**KAS NOTIEK?
SALDUS NOVADĀ**

NĀC UN UZZINI!

ORGANIZĒ:
SALDUS NOVADA PĀSVALDĪBAS
ATTĪSTĪBAS NODALA

IKOPtelpa

PROJEKTS PAR
**LIETUSŪDENS
ATKĀRTOTU
IZMANTOŠANU**

**KULTŪRA UZ
NOSŪTĪJUMU**

4 SVARĪGI PROJEKTI
4 IESPĒJAS UZZINĀT

27. SEPTEMBRĪ
KALPAKA LAUKUMĀ, SALDŪ
NO 16.30 LĪDZ 19.00

*SLIKTU LAIKAPSTĀKLU GADĪJUMĀ
PĀŠĀKUMS SALDUS KOPtelpā,
Striķu ielā 2, 2. stāvā

SALDZĒJOT DARBU IESAKĀVE
UZ PASĀKUMU IERASTIES
KĀJĀM VAI AR VELO!
LĪDZI NEMT SAVU ŪDENS
PUOĒLI
(Saldus pilsētas centrā ir iespēja
to piepildīt)

Saldus piepilda

Local press representatives were invited

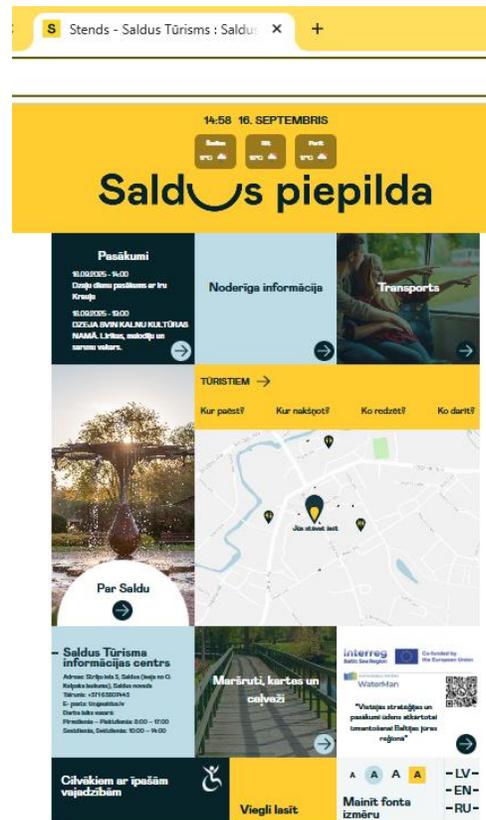
News and updates

➤ Conference in Saldus, April 2025



News and updates

- An updated information stand -next to the Tourism and Information Centre in LV and ENG.



<https://turisms.saldus.lv/stends/>

News and updates

- The filming process has started.
- The film will be up to 3 minutes long



Future Plans for Rainwater and Wastewater Management in Saldus Municipality

- Implement the developed innovative project idea by attracting investments in period 2026-2029.
- Collaborate with entrepreneurs to realize new, innovative ideas in Saldus – reuse treated wastewater for business needs.





Helpdesk / Contacts for further information:

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The „BSR Water Recycling Toolbox” was elaborated as part of the project “WaterMan - Promoting water reuse in the Baltic Sea Region through capacity building at local level”, The project is co-financed by the European Union (European Regional Development Fund) and implemented within the Interreg Baltic Sea Region Programme. More information:

eurobalt.org/WaterRecyclingToolbox
interreg-baltic.eu/project/waterman

WaterMan promotes a region-specific approach to water recycling, which intends to use the alternation of too much and too little water that has become typical in the Baltic Sea Region to make the local water supply more resilient, and supports municipalities & water companies in adapting their strategies.

The contents of „BSR Water Recycling Toolbox” are the sole responsibility of the authors and can in no way be taken to reflect the views of the European Union, the Managing Authority or the Joint Secretariat of the Interreg Baltic Sea Region Programme.

