

Water

Stormwater comes from extensive rain and snow fall that does not go through the wastewater stream. It is important to collect and treat the water before it is discharged into the water streams. When talking about water treatment, most people probably think about drinking water and wastewater treatment as they are the most discussed forms of water treatment in Europe.

Where

Rainfall and snow melts are a form of stormwater that runs across areas like roads, parking lots and other sealed surfaces. It can pick up and carry pollutants like nutrients, metals, organic substances, various particulate and microplastics downstream. If left untreated, these pollutants will often end up in the sea and thereby create a potential environmental hazard.

Why

Stormwater in urban areas can lead to flooding of storm drains and ditches which can cause damage to infrastructure, the environment and human health. Furthermore, climate change, urbanization, and a lack of infrastructure investment are driving the need for alternative and “smarter” stormwater management methods. Stormwater management is crucial to address the health of the Baltic Sea.

Partners



VIIMSI VALD



CleanStormWater

<https://cleanstormwater.viimsivald.ee/>



Potential stormwater treatment solutions have been investigated over the years. CleanStormWater project tested four appropriate methods for the Baltic Sea region.

Estonia

Rebuilding urban streams to improve stormwater treatment

Objectives:

- collect data on water quality and real-time water flow
- manage industrial runoff

Finland

Nature based Bioretention treatment solution

Stormwater percolates through engineered soil medium and vegetation is utilized in uptake of pollutants

Objectives:

- reduce peak discharge rates and retain solids and heavy metals
- increase biodiversity and improve aesthetics in urban areas

Latvia

Vertical hydrodynamic separator Treatment of stormwater runoff from pollutant hot-spot – conjunction of arterial streets & parking lot

Objectives:

- a stand-alone application to remove total suspended solids, floatable trash & oil products
- maximize pollutant capture and minimize pollutant washout

Sweden

Constructed Wetland (test bed)

natural farming with plants and other living systems

Objectives:

- increase biodiversity, strengthen water management
- reduce nutrients and pollutants inflow into the Baltic Sea



Guide to the new StormWater treatment

