

# SÖDERHAMN SWEDEN



BSR NOAH: January 2019 - December 2021



## NOAH ACTIONS

A **Storm Water Management Model (SWMM)** of the Söderhamn pilot area was created to estimate the amount of urban run-off.

**Water flow measurements and sampling** were also carried out. Water sampling is conducted to analyze the quality of the stormwater and for modeling it in different flood situations.

**The Extreme Weather Layer (EWL)** is a new tool created in the NOAH project and is used for planning in the city of Söderhamn. The tool assists in spatial planning and flood risk prediction.

## NOAH IMPACT

- ◆ With NOAH actions, financial damages can be reduced, and flood risks mitigated.
- ◆ Consequently, wastewater spillages and overflows are reduced, resulting in less pollutants and excessive nutrients flowing to the Baltic Sea.

## ABOUT THE PILOT SITE

- ◆ Söderhamn is a city located on the east coast of Sweden
- ◆ Total area of 10.4 km<sup>2</sup>
- ◆ Separate sewage and stormwater systems

## CHALLENGES

- ◆ The pilot area was chosen to analyze the impact of heavy rainfall and sea level rise on urban environment and stormwater system.
- ◆ Some stormwater catchments e.g. roofs are still connected to the sewer system and therefore there are several combined sewage overflow (CSO) structures in the system. However, these CSO-s are equipped with backflow valves to avoid seawater entering to the sewer.

