

Improvement of urban waters Project

Kaupunkivesistöt kuntoon –kärkihanke

HALLITUKSEN
KÄRKIHANKE

Kajsa Rosqvist
City of Helsinki Environment Services

30.11.2017



Picture Kajsa Rosqvist

Partners and budget

City of Helsinki (lead)

- Katja Pellikka, Päivi Islander, Lotta Ruokanen

City of Espoo (partner)

- Virpi Nikulainen, Eeva Nuotio

Ministry of the Environment (financing body)

- Jenni Jäänheimo

Vahanen Environment (service provider for Espoo)

- Paula Wuokko, Marko Sjölund

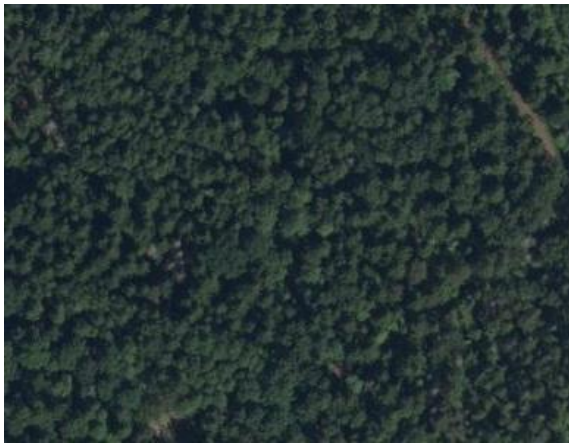
Duration 1.10.2017-30.11.2019

Budget 690 000 €, 60 % Ministry of the Environment co-funding

(”Vesien- ja merenhoidon toimeenpanoa edistävä hallituksen kärkihanke”)

“The aim of the project is to decrease the loading of nutrients and hazardous substances to the Baltic Sea and to **improve the quality of storm waters** and the state of urban waters as well as promote circular economy”

Challenges to be tackled



- Increasing rain fall due to climate change
- Densifying city structure
 - Ø Flooding and decreasing storm water quality: erosion, pollution from traffic, coatings, paved surfaces

Biochar

In the **Improvement of urban waters** project biochar will be tested for management of storm water quality.

Biochar is a material produced by heating of biomass (e.g. wood) without oxygen (pyrolysis). Biochar has good capacity for binding excess water and nutrients.



Picture Wikipedia

Storm water pilot sites based on biochar in Helsinki and Espoo



Helsinki

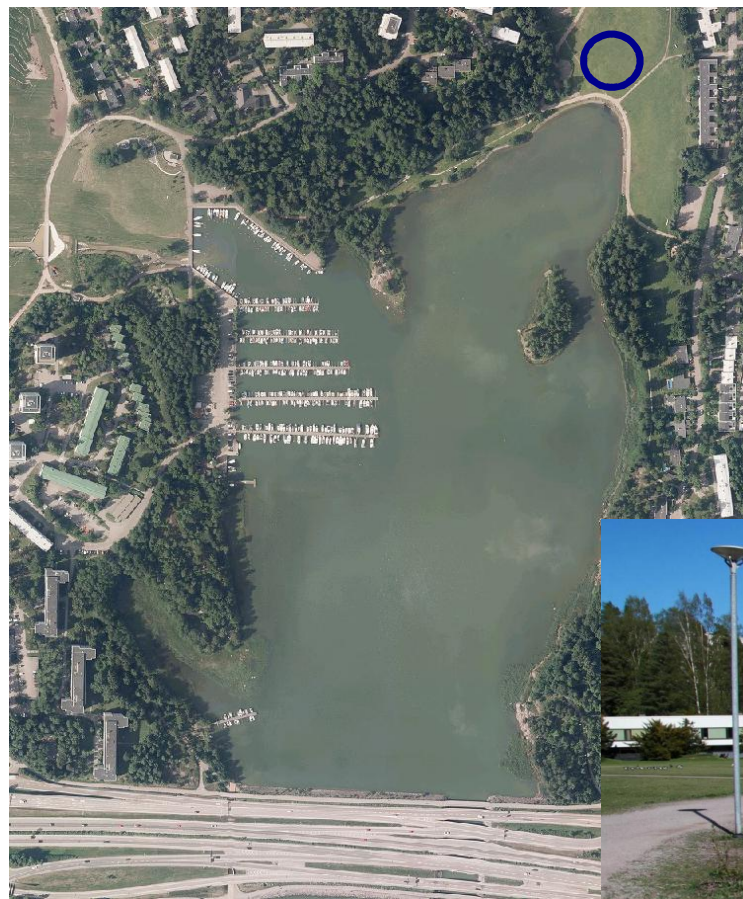
Maunulanpuro brook, Helsinki



- Popular recreation site in central park
- Salmon breeding
- Leakage of **oil and hazardous substances** from industrial area in drainage area

Pictures Kajsa Rosqvist

Otsolahti bay, Espoo



- Popular recreation site
- Partly enclosed bay with low water depth
- Storm waters of bad quality increase **nutrient loading**, esp. from traffic



Pictures Paula Wuokko/ Vahanen Environment

Timetable and monitoring

- Construction planning during spring 2018
- Construction in late summer 2018
- Water quality monitoring before, and after construction in fall 2018-end of year 2019
- Info boards by solutions for dissemination

Helsinki



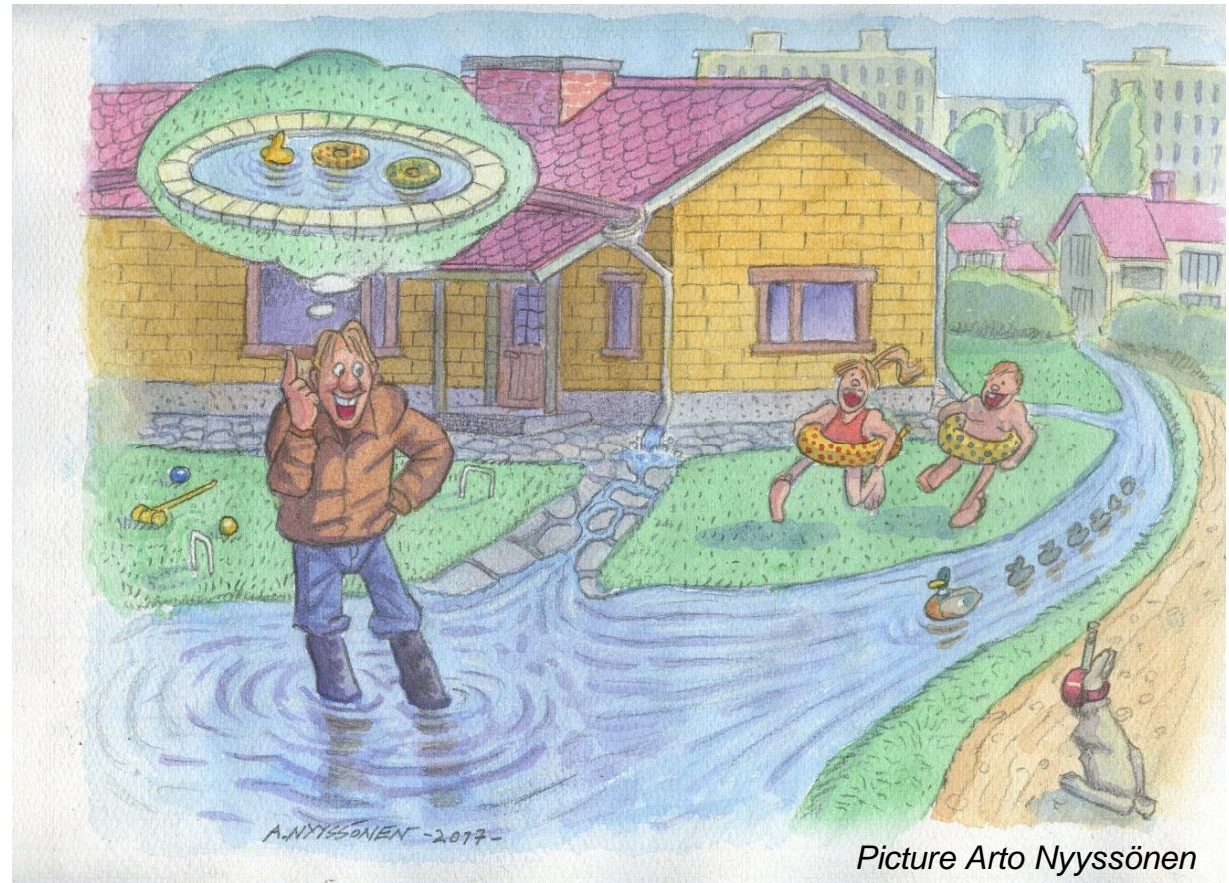
Picture Kajsa Rosqvist

Results targeted

- Improved storm water quality in two urban water systems
- Increased knowledge on pilot solutions and in general on sustainable storm water management
- Piloting of biochar for storm water quality management
 - Investment- and usage costs
 - Environmental effects
 - Duration and maintenance of the method
 - Possibilities for reusing biochar
 - Technical product cards, brochure, report and thesis

Stakeholders!

- Residential meetings
- Final seminar
- Webpage
http://www.itamerihaaste.net/tyomme/hankeemme/kaupunkivesistot_kuntoon
- Press releases
- **Facebook** Helsingin kaupunkiympäristö, Itämerihaasteen tutkimusmatka
- **Twitter** Helsinki Kymp, Itämerihaaste, #biohiili, #hulevesi, #kaupunkivesistöt, #kärkihanke, #Helsinki, #Espoo



Picture Arto Nyysönen

[Thank you!](#)
Kajsa.Rosqvist@hel.fi

YLE Uutiset Uusimaa 20.11.2017

<https://areena.yle.fi/1-4295016?autoplay=true>