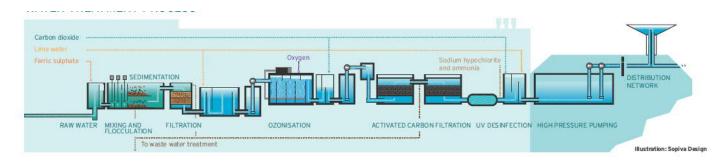
### **EXCURSION TO VANHAKAUPUNKI PURIFICATION PLANT**

# We will meet at 12:45 in front of the gate!



### THINGS TO ASK AND CHECK DURING THE VISIT

### Raw water

What is the history in Vanhakaupunki plant with the raw water source? What is the raw water used nowadays? What are the main objectives of the treatment with this raw water?

Coagulation, flocculation and sedimentation

What is the coagulant used? Are other chemicals dosed here? What is the pH used in coagulation? How is the chemical sludge removed and where is it going?

# Sand filtration

- filter depth, filter media, media size, average filtration velocity, surface area of the filter, and backwash flow or velocity
- criteria for backwash (time, head loss, turbidity)
- backwashing methodology

# Ozonation

What is the ozone dosed used? How is the ozone produced?

#### Activated carbon filtration

filter depth, filter media, carbon material, average filtration velocity, surface area of the filter, and backwash flow or velocity

- criteria for backwash (time, head loss, turbidity)
- backwashing methodology
- reactivation methodology

### UV and chlorination

What kind of UV lamps are used? What is the dose? What is the chlorination method used?

Why is carbon dioxide added to the water?

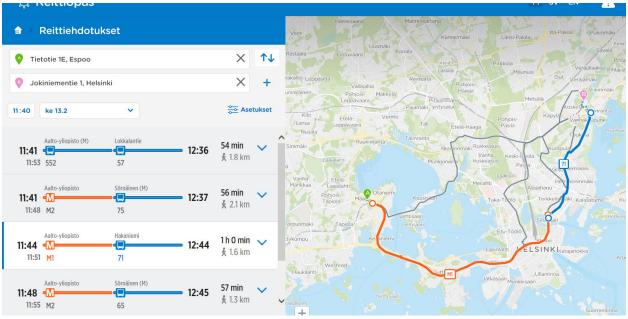
# General questions

Which process units are mainly responsible for the hygienic quality of the water? Which chemicals were added to the process and where? Which parameters are monitored on-line from the process and why? Which changes have been made in the processes compared to the process scheme?

How many people are working at the plant? What kind of process disturbances are occurring in the process? How will the process be modified in the future?

# HOW TO GET THERE?

See the map and the public transportation connection.



OR

