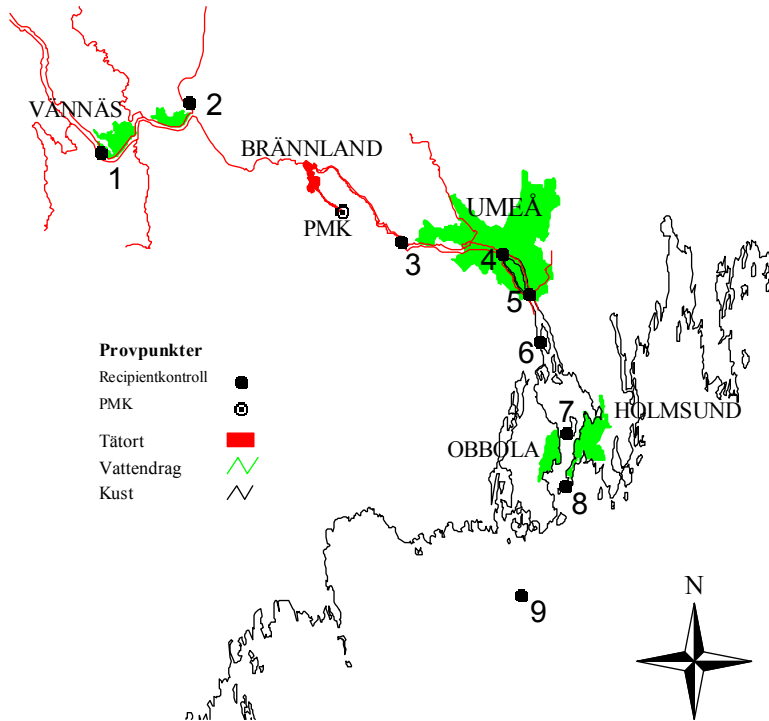


MONITORING OF RIVER POLLUTION WITH TIME WEIGHTED AVERAGE (TWA) WATER CONCENTRATIONS WITH SEMIPERMEABLE MEMBRANE DEVICES (SPMD)

Project reference



Project:

Pilot project of Umeå river investigation (Sweden)

Customer:

Umeå county, Sweden

Project period

2000-2001

Nature of task:

- Determination of PCB point source in Umeå river

Summary



Semipermeable membrane devices were used in the search for a PCB point source in Umeå river, Sweden. Diffuse sources or discontinuous sources of pollution to rivers are difficult to study since the time of sampling is crucial. With semipermeable membrane devices (SPMD) a continuous sampling of dissolved concentrations of lipophilic compounds were performed during several weeks. Umeå river has been studied during several years searching for sources of lipophilic organic pollutants as PAH, PCB, organochlorine pesticides, hexachlorobenzene etc.

The search started along a 50 km long part in the river and after few samplings ended up in the stormwater system, where one large source were identified. During the search it was found that the release to the river were strongly related to season and thus to climate changes. Since the release was at the shoreline, the distance of sampling from the shore were also important.

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