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# The adaptation space of organizations

Insights from adaptation of the Water Supply and  
Waste Water (WSW) sector of the Stockholm Region



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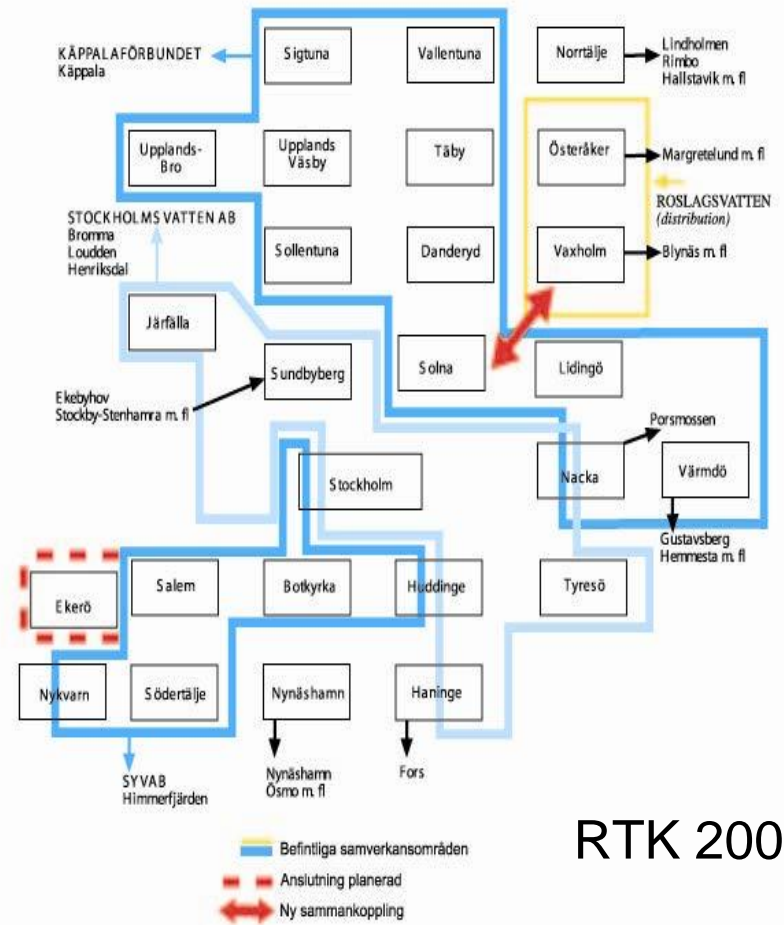
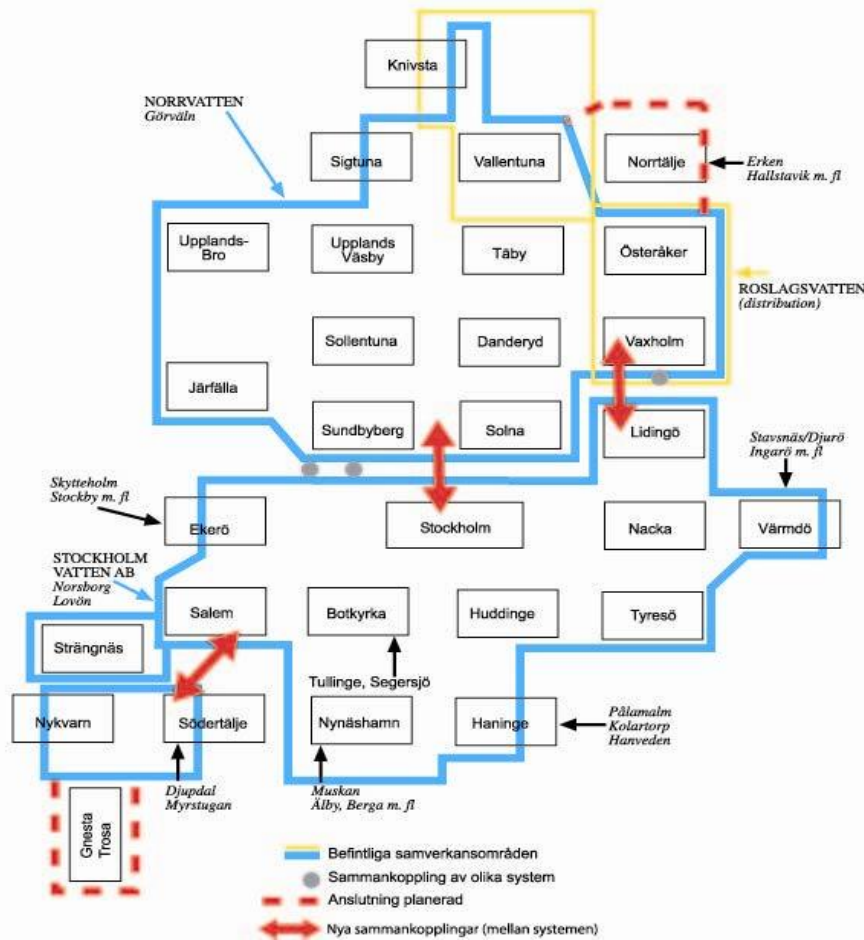


# Three main services that could be affected by climate change

- Water production and distribution
- Maintenance and function of sewage system
- Sewage treatment



# WSW sector in Stockholm is largely based on 5 regional organizations





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# Method

- 'Building adaptive capacity' and 'implementing adaptive decisions' categories used to assess how the sector is adapting
- Theory of organizational learning used to identify factors explaining why adaptation happens
  - Signal strength and interpretation
  - Internal selection and relation to other signals
  - Feedback from environment



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# Adaptation space of organizations

- Concept used in the ADAPT project (Berkhout et al. 2004)
  - Analyzes adaptation from the viewpoint of organizations
- 'Universe of existing adaptation measures' which is understood to be what is technically and organizationally possible
- Acknowledged that some options are more or less attractive or feasible but little explanation how and why



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## Some results

- Adaptation is mainly taking the form of building adaptive capacity. Where implementation has taken place climate change is one of several factors
- Main explaining factors found
  - Climate change contested and uncertain
  - Big difference in cost between building and implementing
  - Price sensitive politics
  - Market pressures
- Technical and organizational factors not paramount



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# Implications

- 'Feasibility' an important factor in order to understand the actual adaptation space of organizations and the process of adaptation to climate change
- Robust solutions is suggested in the literature as a way of adapting that deals with the intrinsic uncertainty of climate change and its effects
  - Results show that at present in Stockholm robust adaptation is unlikely due to its increased costs and the uncertainty of the climate change signal