



# Climate adaptation in Norrköping, -strategies and practical examples

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# Norrköping



# Strategies for Climate Adaptation

## Principles for planning

- Sea: 100 year return year 2100,
- Sea: no buildings < 2.5 meters above sea level
- Lakes and streams: 100 year return
- Rain: 100 year return year 2100
- The municipality is responsible for rain larger than the pipes can handle

## Models for flooding:

- Sea, largest lakes: 2009
- Stormwater: 2022 (2012, 2017)

- **Current comprehensive plan:** reserved surfaces for flooding
- **New comprehensive plan:** Risks for existing buildings and strategies for reducing their risks described
- **Detailed plans:** Show how the principle for planning is secured-requirement for allowing new buildings

# Strategic documents

**Guideline for climate adaptation**



**Guideline for sustainable stormwater management**



# Practical examples



Two projects to reduce the risk for flooding

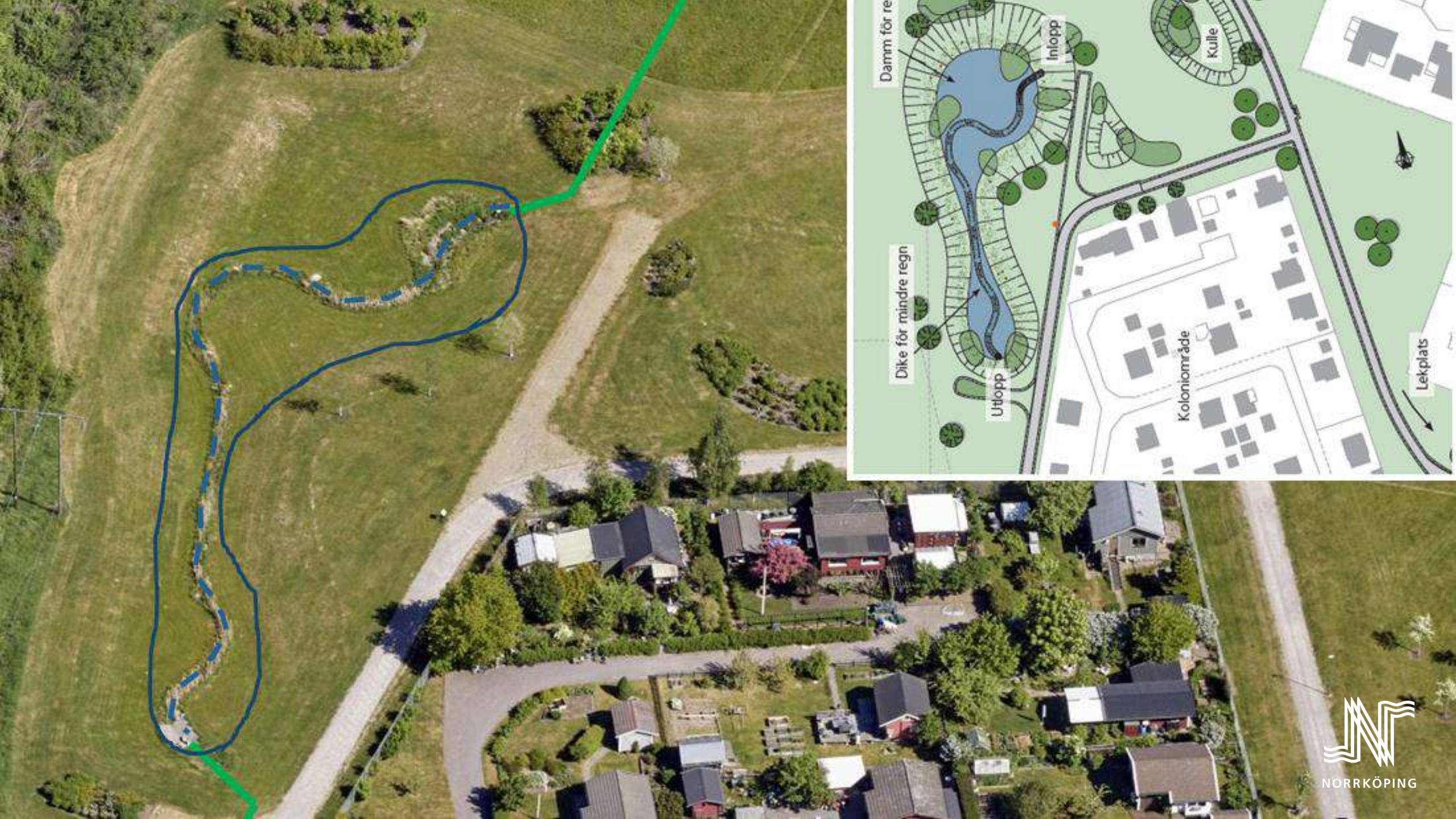


# Pryssgårdsparken

Reduce the risk of flooding when it rains



NORRKÖPING





# Cost allocation

- Cost was shared between the water company and the municipality
- Planning phase: 50 % each
- Building phase: Your own part:
  - Volume for stormwater: water company (40%)
  - Volume for flooding: municipality (60%)
- Operation and maintenance
  - Surfaces for grass and plants: municipality
  - Technical parts: water company



Management of soil- handle within the project



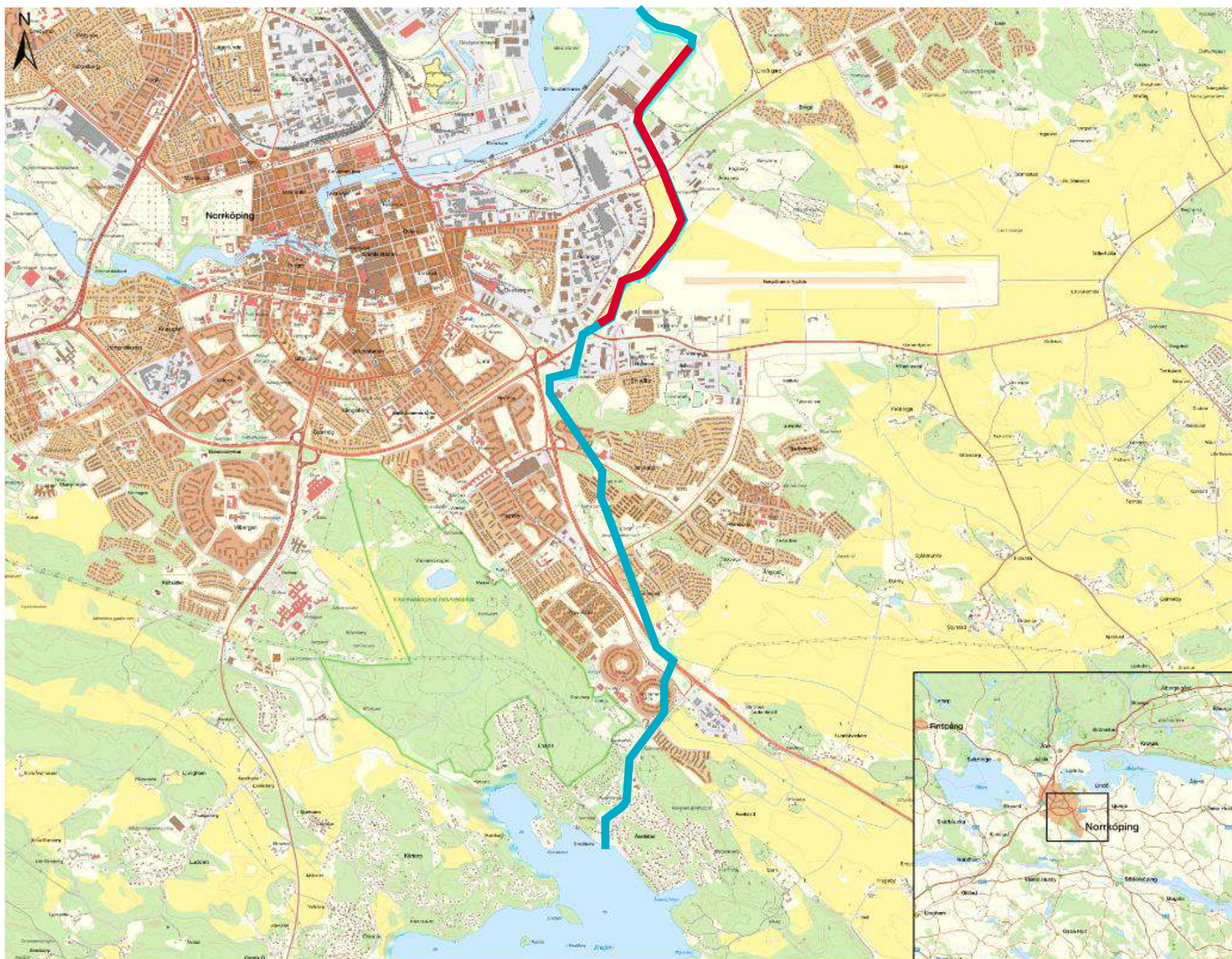
Plant establishment

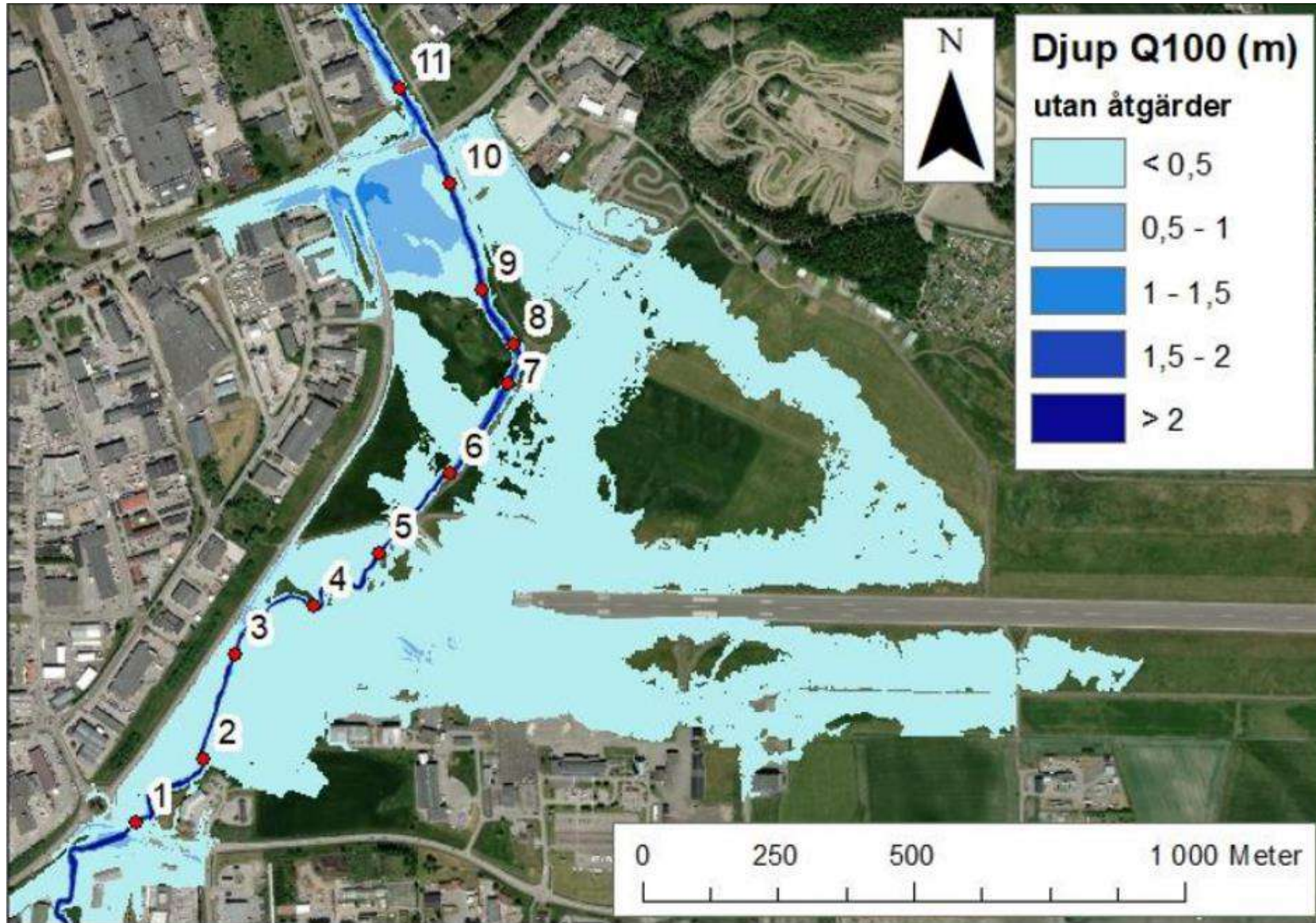




# Ljura bäck

Reduce the risk of flooding around a natural stream







”Natural ditches”  
Two and three levels



Heights on the new levels



Geotechnics and stability





# Thank you!

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