Session D2: Stream Restoration in an Urban Context

Peter Bønløkke Adamsen
*Ramboll Environment & Health, Denmark*

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- Peter Bønløkke Adamsen, Ramboll Environment & Health
- Market Manager and Technical Expertise Leader, Nature Services
- Engineer
- 9 years with Ramboll
- Expertise: River restoration, fish and fauna passage, wetlands
THE SITUATION TODAY HARRESTRUP STREAM

• 30 km watercourse from Harrestrup Bog northwest of Copenhagen to the outlet into the sea
• Runs through several municipalities
• Approx. 10 km through the City of Copenhagen
• Former derivation channel for the waste water
• It lies deep beneath the surrounding terrain
• Concrete tiles on the bottom and sides of the stream
• Shielded by fences, trees and bushes
• No correlation with the surrounding parks
OVERALL OBJECTIVES FOR THE RESTORATION

• The vision is to restore Harrestrup Stream as a natural, recreational and sustainable stream
• Improved aquatic environment – fulfilling Water Framework Directive EU
• Recreational park areas
• Climate adaptation
• Bathing water quality at the outlet into the sea and eventually construction of beach
• Construction works over the next eight years
• Together with Schonherr, Ramboll has prepared a master plan for restoration
THE MASTER PLAN’S DIVISION AND THEMES

- Divided into sections which will be implemented in eight stages towards 2021
- Common for sections:
  - Water Framework Directive EU
  - Waste water
  - Climate adaptation
  - Maintenance of watercourses
  - Aquatic vegetation
  - Natural bottom substrate, gravel and stone materials
- 4 themes:
CHALLENGES WHEN PREPARING A MASTER PLAN

- Everyone has their own views
- Laws and regulations
- Many stakeholder organizations
- Many departments in the municipality and a lot of different plans for the development
- Technical aspects
- Other construction works
EXAMPLE SECTION DAMHUS MEADOW

- The stream is moved to the lowest parts of the meadow
- The stream is provided its meandering course
- Most of the stream will be about 2 meters wide
- The stream will be up to 40 meters wide after extreme rainfall
- The meadow is preserved as an open width
- New walkways across the stream
- The bottom of the stream is carried out with gravel and stones
- The number of football pitches is maintained
EXAMPLE SECTION VIGERSLEV PARK

- The stream is giving its meanderings through the park
- Utilization of low terrain
- “Nature” urban area with wet meadows, side-streams and small bird islands
- The number of football pitches are preserved
- Festival ground activities near the stream
- Resting opportunities on the slopes along the stream
- New connections (bridges and walkways) across the creek
THANK YOU FOR YOUR ATTENTION