



Pernilla Bratt
Lidköping Municipality
Project manager



Lidköping Municipal



Project partners



Lidköpings
kommun

Pernilla Bratt
Amanda Andersson
Gudrun Magnusson
Eva Labecker
Bjarne Jörgensen



LUNDS
UNIVERSITET

Karin Jönsson
Sofia Högstrand

KOMPETENZZENTRUM
WasserBerlin

Ulf Mieke
Fabian Kraus
Michael Stapf



LANTBRUKARNAS
RIKSFÖRBUND

Jan Eksvärd
Kent Thorstensson

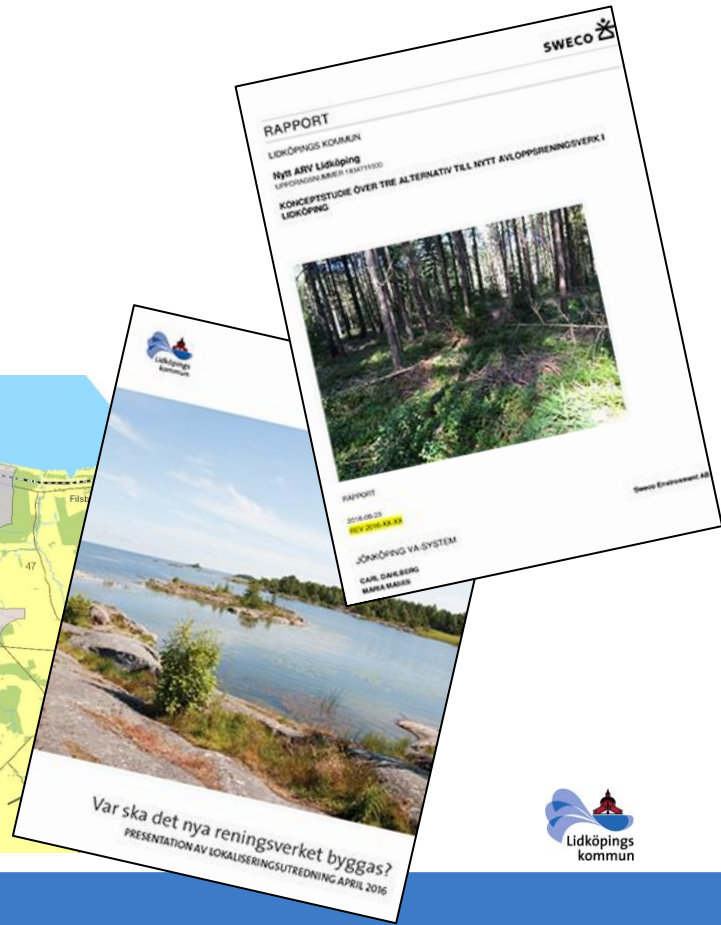
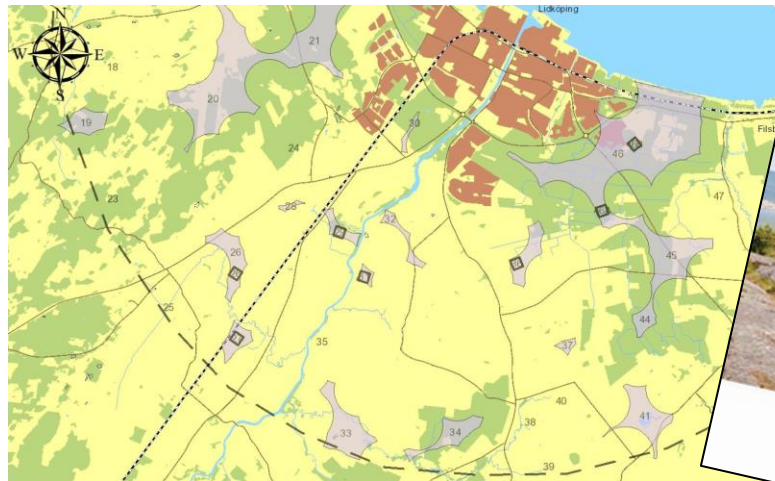
Ängens WWTP



Why a new WWT-plant

- Current treatment plant old,
 - Exceeds its permit by approximately 10,000 pe
 - Untreated water, does not meet today's requirements for dimensioning up to 4Qdim
- Vision 45,000 inhabitants - increased capacity requirements
- The country side goes from individual sewer to be connected to municipal WWTP
 - About 85-90 % of the entire municipality is connected to the WWTP
 - 134 small WW-associations
- Increased environmental requirements
- Climate change - more rain, today's location uncertain
- Long-term the most advantageous in terms of economy, energy and the environment

- Political decision, 27 april 2015
- Location investigation, 6 april 2016
- Technical prestudy, including rough cost estimates, 6 oktober 2016



Our goal

- Be at the front edge in Sweden regarding requirements from the start
 - Treatment of micropollutants
 - Phosphorus recycling
 - Microplastic in the water phase
- Prepared for tougher emission requirements
- Approach energy neutral
- Educational facility
- Ängsbäcken creek
- Flexible - Extension - Different modes of operation
- The environmental aspect is important
- Emission to Lake Vänern, one of the largest drinking water resources.



Northern Europe's most innovative small-scale WWTP

The core in a circular economy and key to accomplishing several EU strategies

50% less energy consumption
(compared to conventional plants)
→ The European Commission's goal for energy efficiency

80-99% elimination of pharmaceutical residues
→ The Europe 2020 strategy and 'Roadmap for strategic approach to pharmaceuticals in the environment'

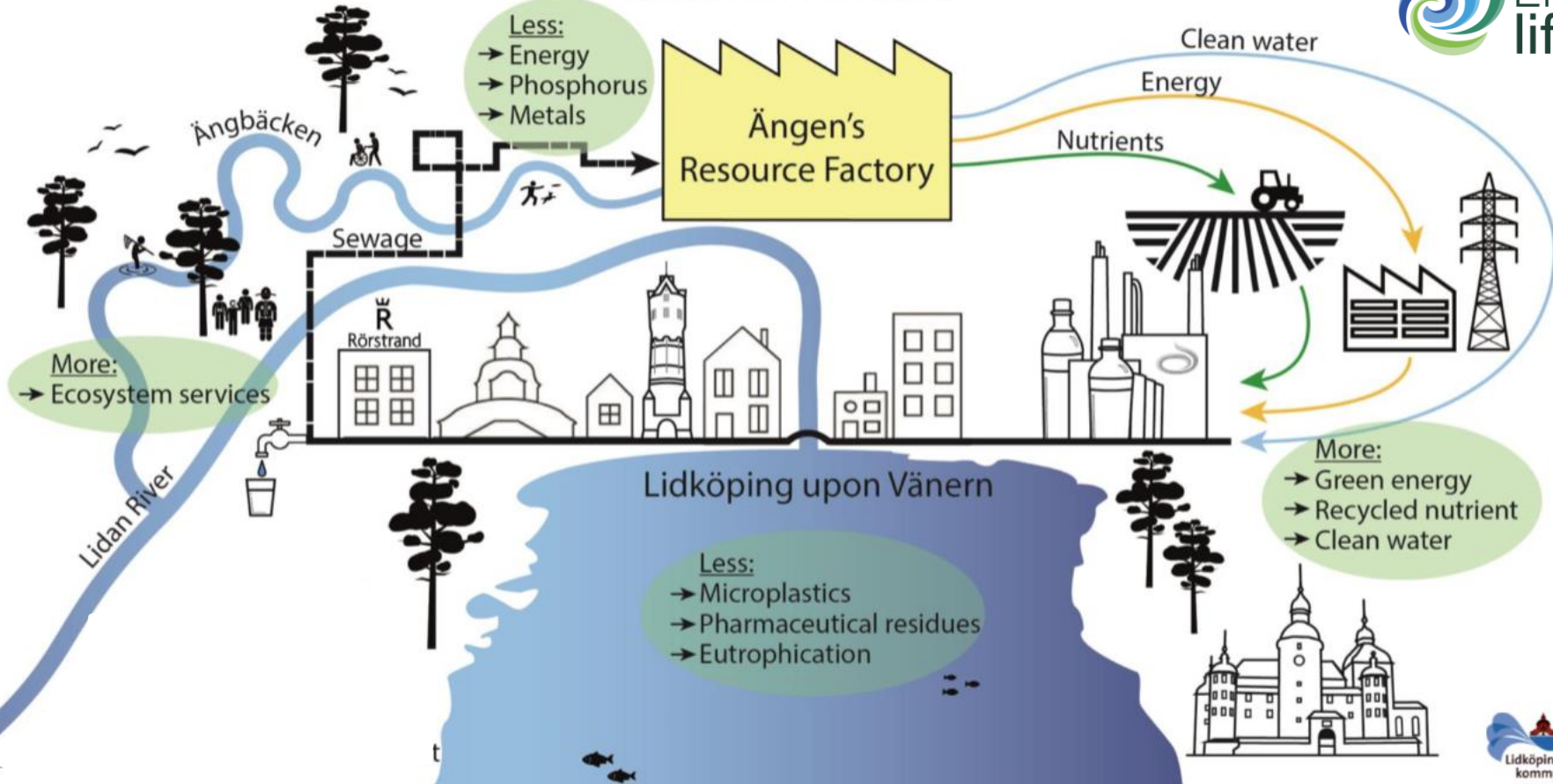
99.5 % reduction of microplastics
→ 'A European Strategy for Plastics in a Circular Economy'

12,000 kg phosphorus recycled yearly
→ 'European Roadmap for Resource Efficiency'

250,000 kg decrease in yearly chemical usage
→ 'European Roadmap for Resource Efficiency'



The distance between people and organisations is short in Lidköping



Contribution

- **LIWE-LIFE - EU**
- **LONA – County administrative board**
 - Ängsbäcken
 - Learning and recreation along the creek
- **The National Board of Housing**
 - Ängsbäcken
 - Contribution to greener cities
 - The development of an urban green area with a creek, stormwaterpond and natural infrastructure for recreation in Lidköping.
- **Environmental Protection Agency**
 - Treatment of micropollutants

A total contribution of 5,5 million Euro

Thank you for your attention

<https://blogg.lidkoping.se/angensarv/>

Pernilla Bratt

Lidköping municipality

+46 510 77 02 79