



# Lake restoration and stormwater treatment

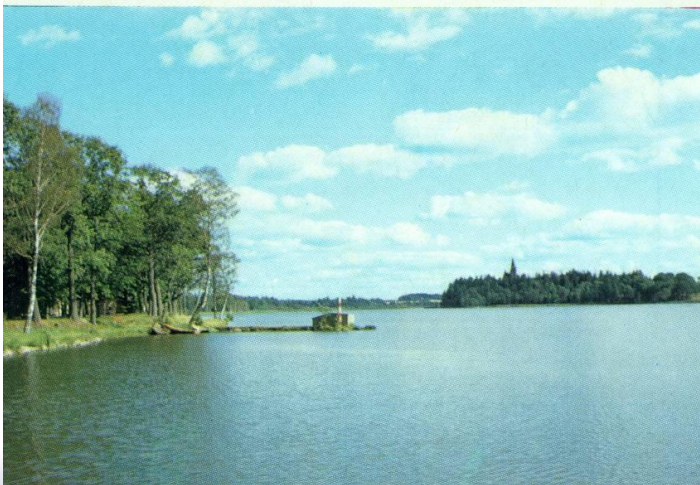
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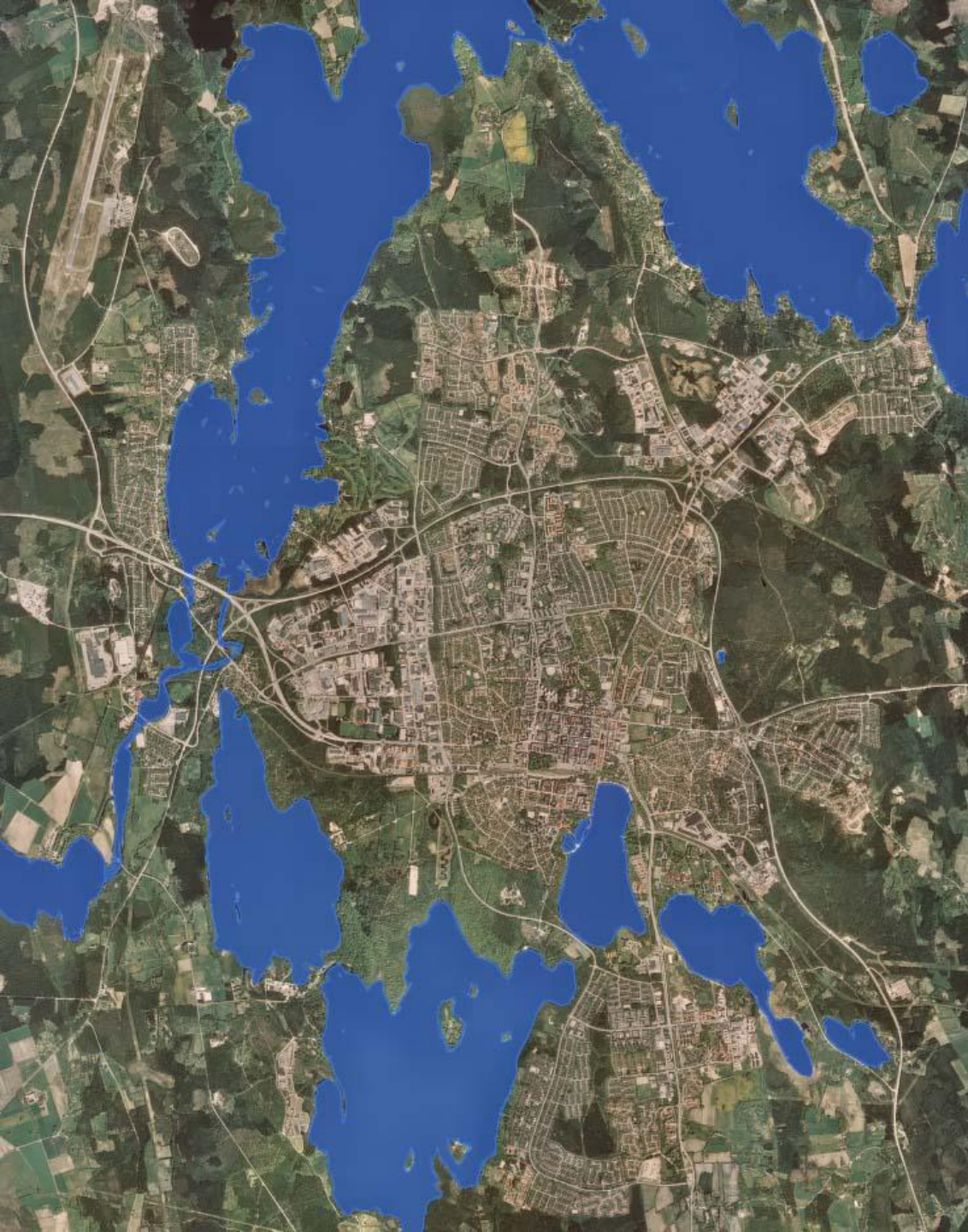


# From environmental problem to a resource

## Lake restoration in Växjö







**The city of Växjö is surrounded by several lakes.**

**In many years we polluted them and turned them our backside.**

**Lake restoration made Växjö's central lakes, to beautiful and useful areas.**



# Three city lakes are restored



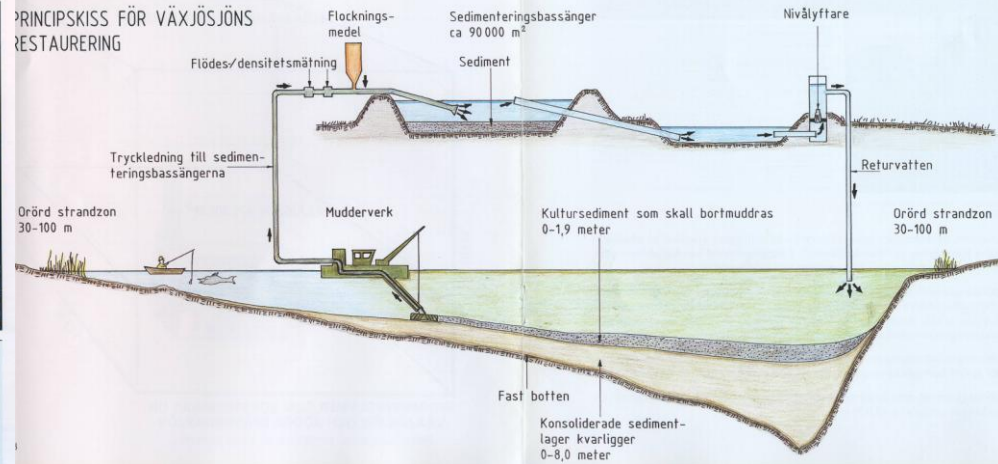


# Sediments are dredged from lake bottoms



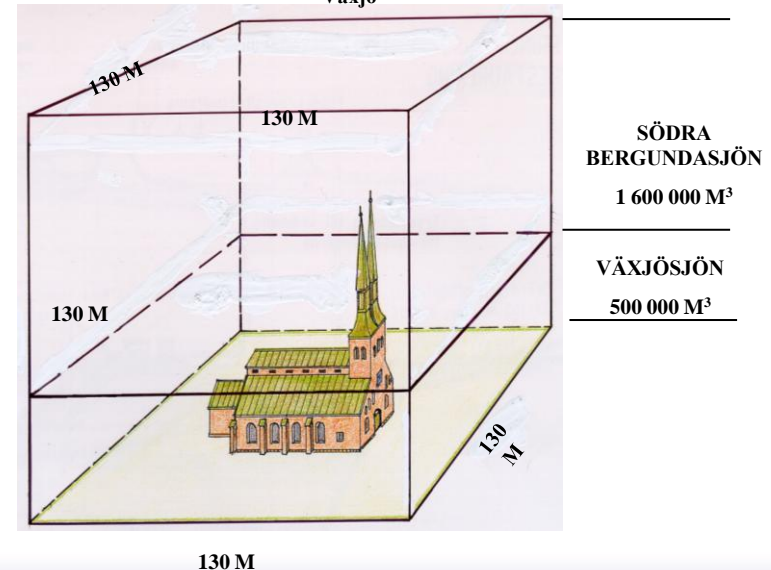
Fakta om mudderverket DETRITUS

Total längd inkl arm	32,20 m
Bredd	4,30 m
Djuphölde	0,85 m
Totalvikt	56 ton
Max muddringsdjup	14 m
Kraftförsörjning	Scania diesel >400 hk
Mudderskruv	Längd 3,60 m, diameter 0,50 m
Tryckledning	PEH 315 mm, längd <3 000 m



Jonsboda  
Detentionponds ca 25 ha  
Volume of sediment after 10  
years ca 400 000 m<sup>3</sup>

Quantity of sediment dredged from Växjösjön and Södra Bergundasjön related to the cathedral in Växjö





**Fishing to reduce the  
amount of fish in the lakes**

**84 000 kg of white  
fish have been taken  
away from the lakes**





# Lake Trummen

**Before**

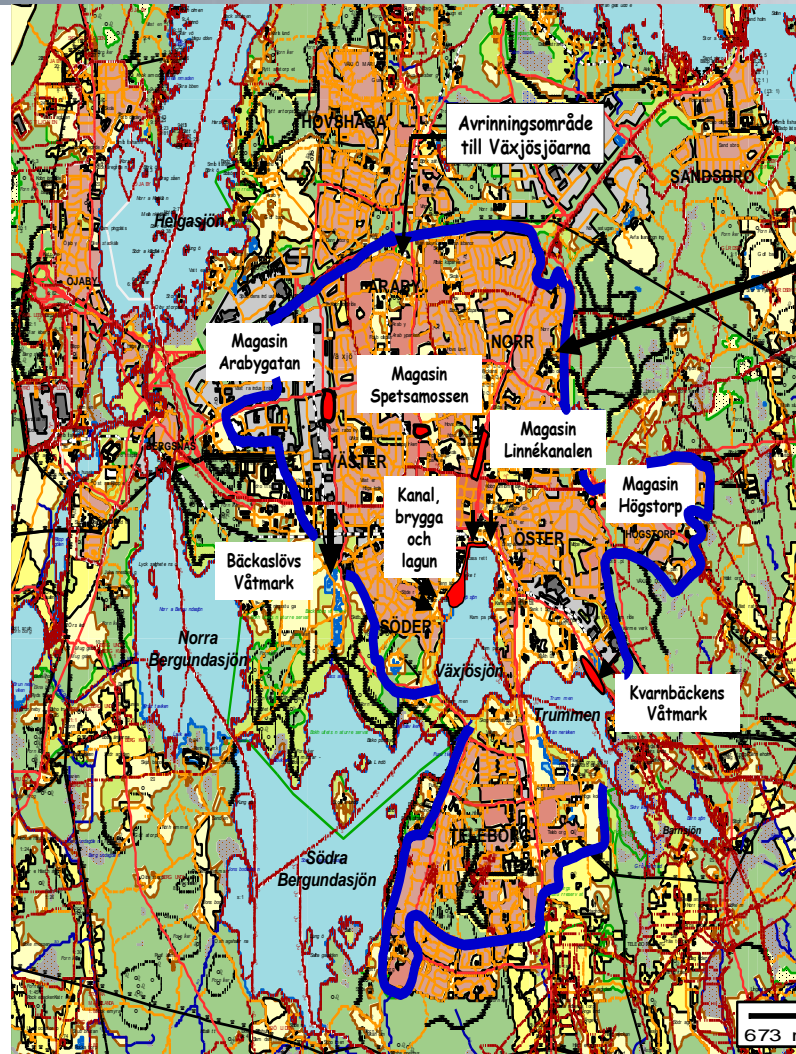


**After**



# Stormwater treatment

- Artificial wetlands
- Underground basins
- Open magasins
- Laguns



Catchment are and drainage basins

DAGVATTEN  
Åtgärdsprogram för Växjösjöarna



# Wetland for sedimentation

Catchment area:

- 190 ha industry, office och business
- 130 ha dwelling area

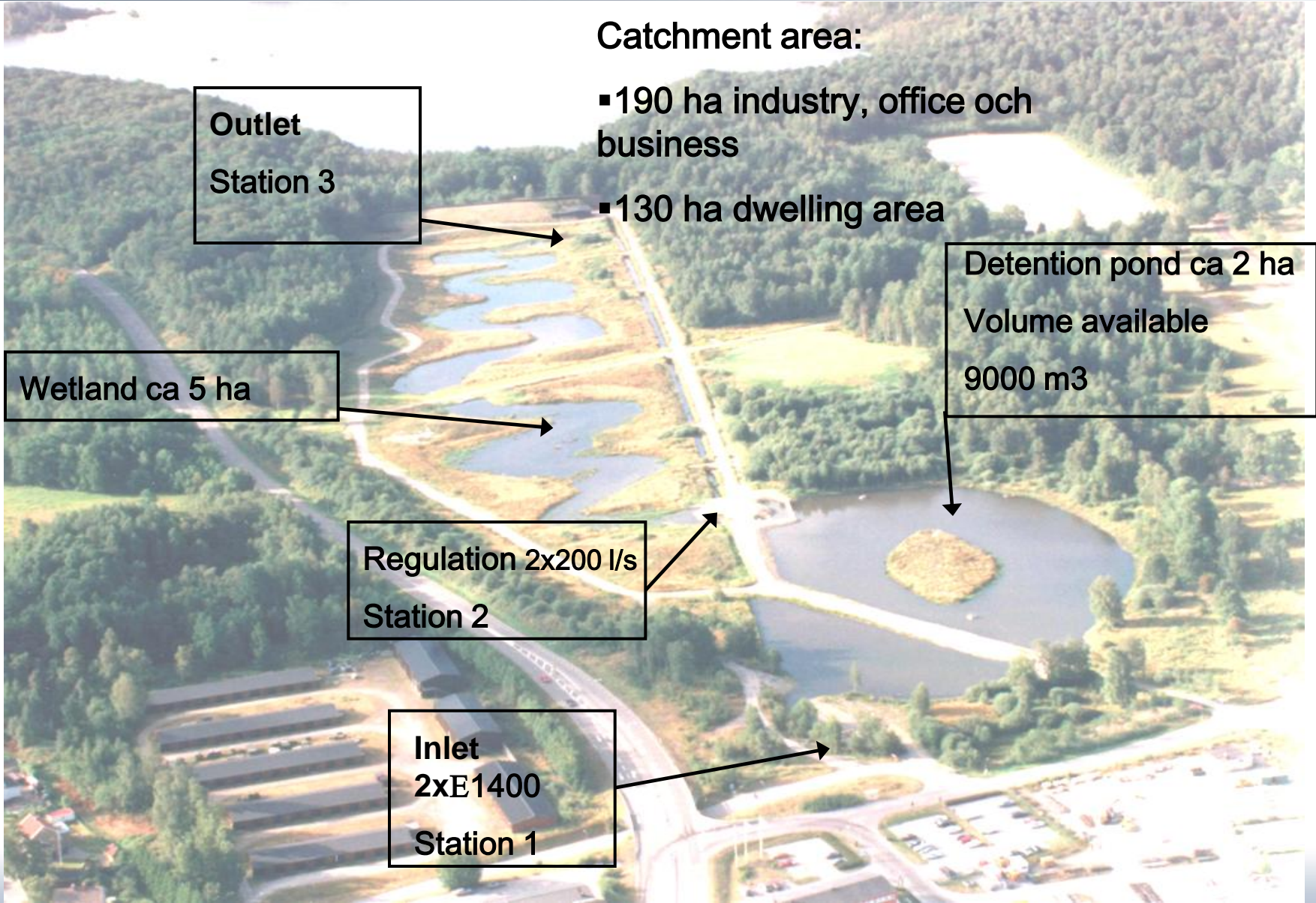
Outlet  
Station 3

Detention pond ca 2 ha  
Volume available  
9000 m<sup>3</sup>

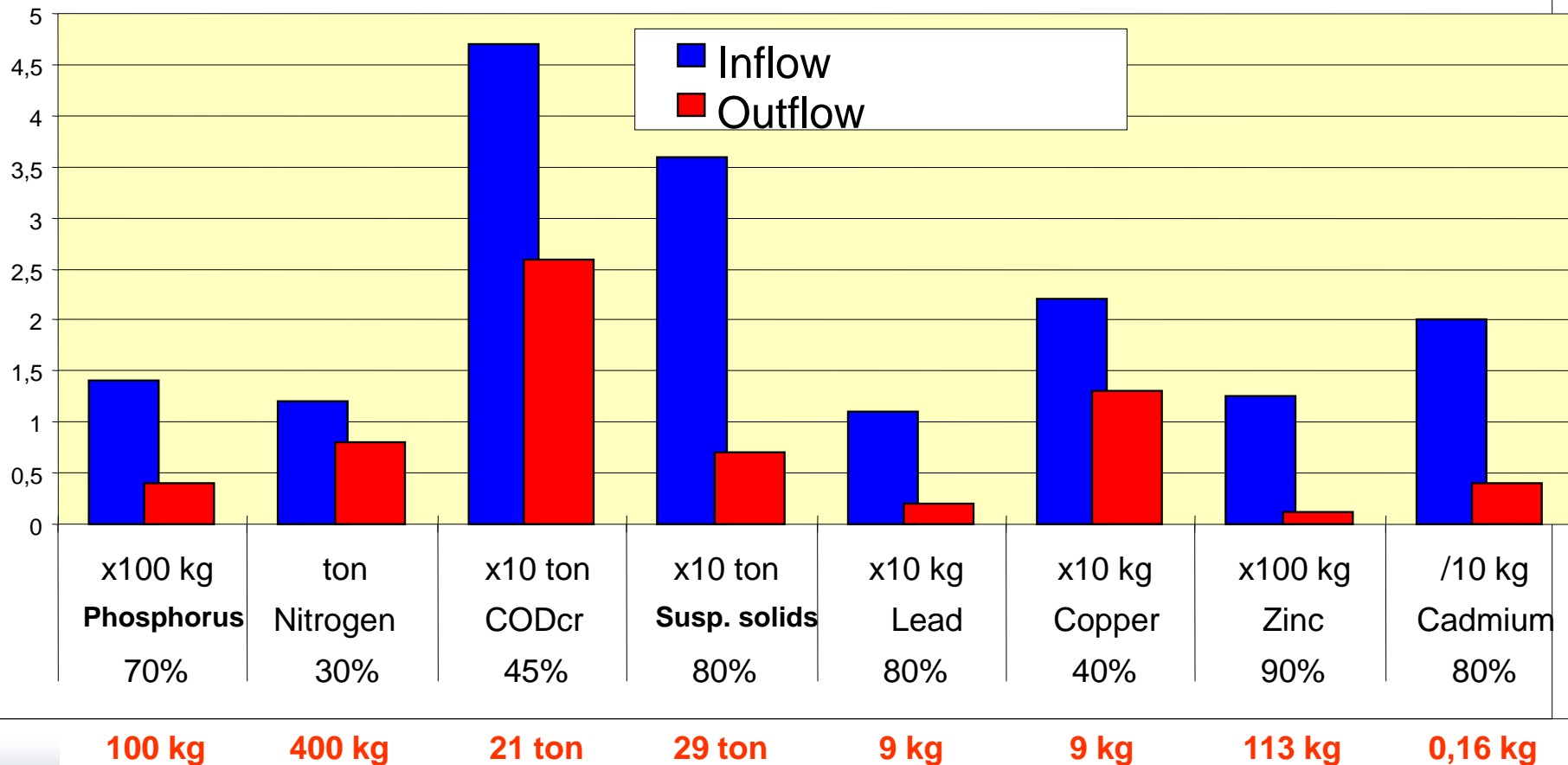
Wetland ca 5 ha

Regulation 2x200 l/s  
Station 2

Inlet  
2xE1400  
Station 1



## Estimated yearly reduction of stormwater pollution in Bäckaslövs wetland





# Treating storm water to reduce flooding





# Underground basin and ground parking

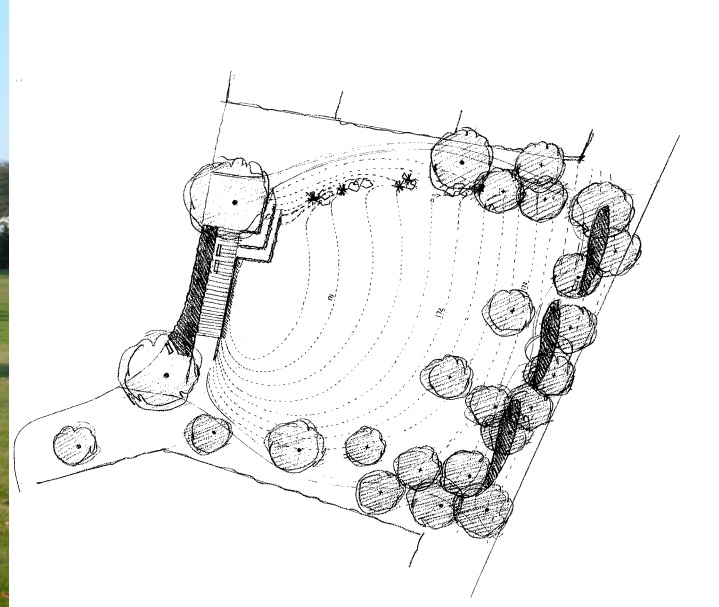




# Open stormwater magasin and playground

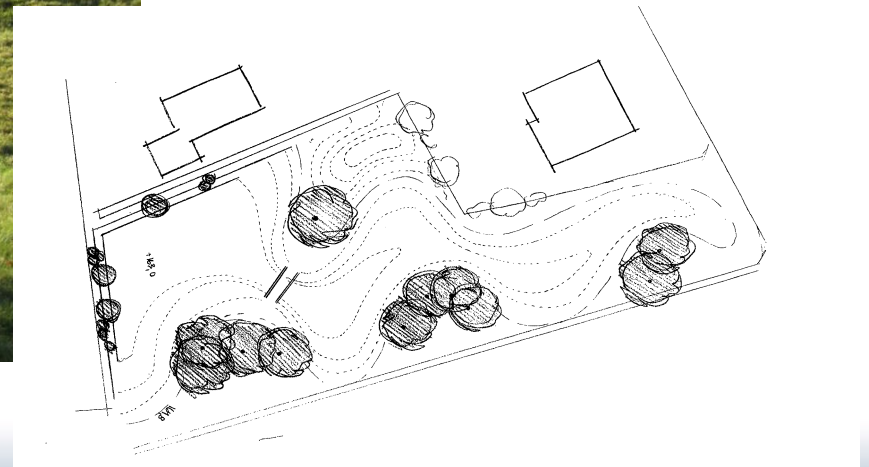


# Open stormwater magasin and amusementpark



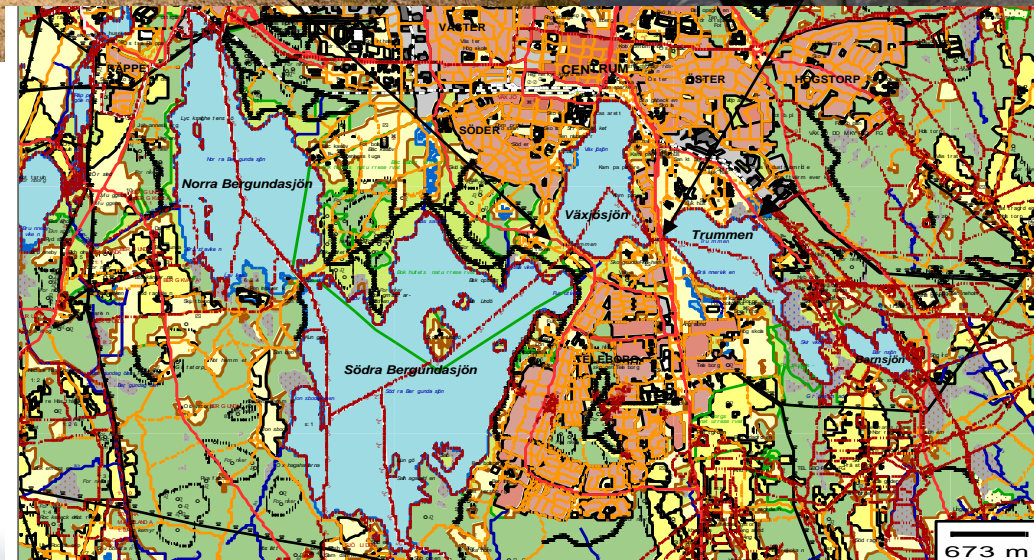


# Open stormwater magasin and park



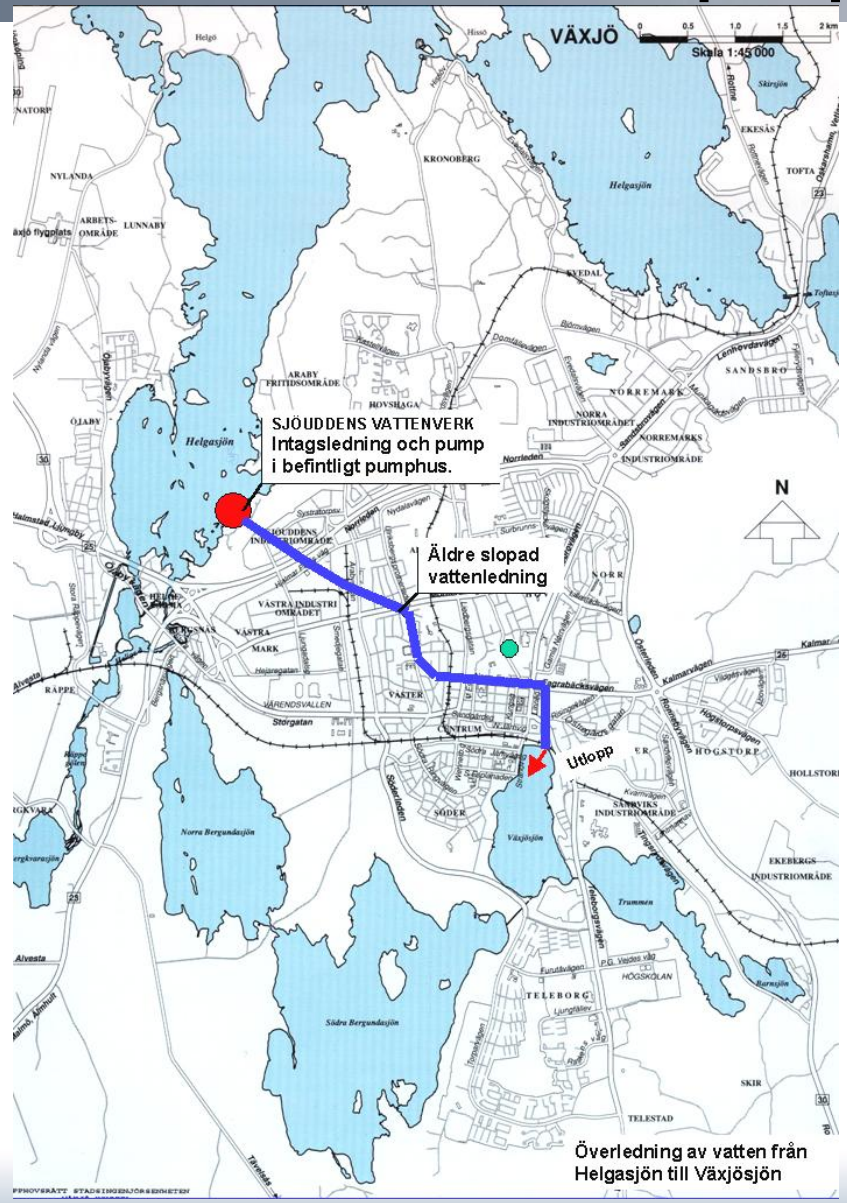


# Open pond for flooding



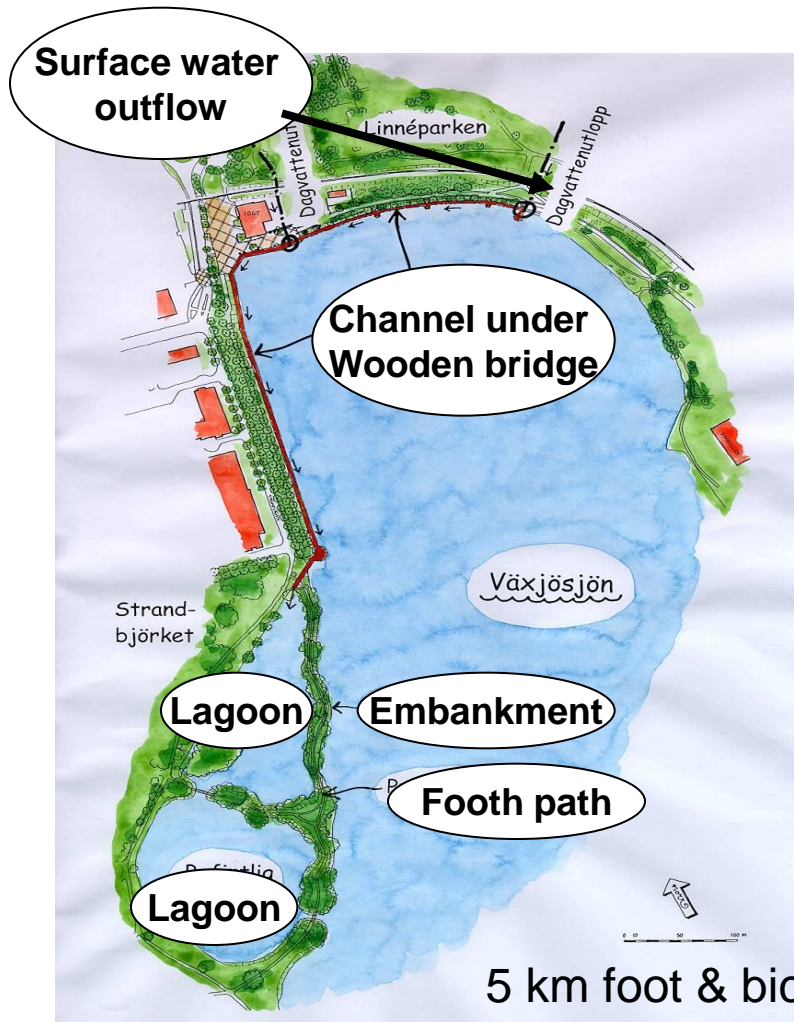


# Water from fresh water supply lake runs in pipe to downtown lake to help improve the water quality. *Europas grönaste stad*





# Lake restoration and surface water treatment made central lake, into an attractive and useful area.



5 km foot & bicycle path around the lake





# Fresh water is essential for a good life

