

The Stockholm action plan for good water status

14.00 Welcome

14.10 Stockholm - A city on water

Katarina Luhr, Vice Mayor for Environment, City of Stockholm

14.20 The Stockholm Action plan for good water status

Juha Salonsaari, Water Coordinator, City of Stockholm

14.50 The Urban Water Agenda 2030 *Gunnar Söderholm,
Head of the Environment and Health Administration, City of
Stockholm*

15.00 Discussion

15.20 Summary and conclusions

Stockholm – a city on water



Katarina Luhr
Vice Mayor for Environment
City of Stockholm







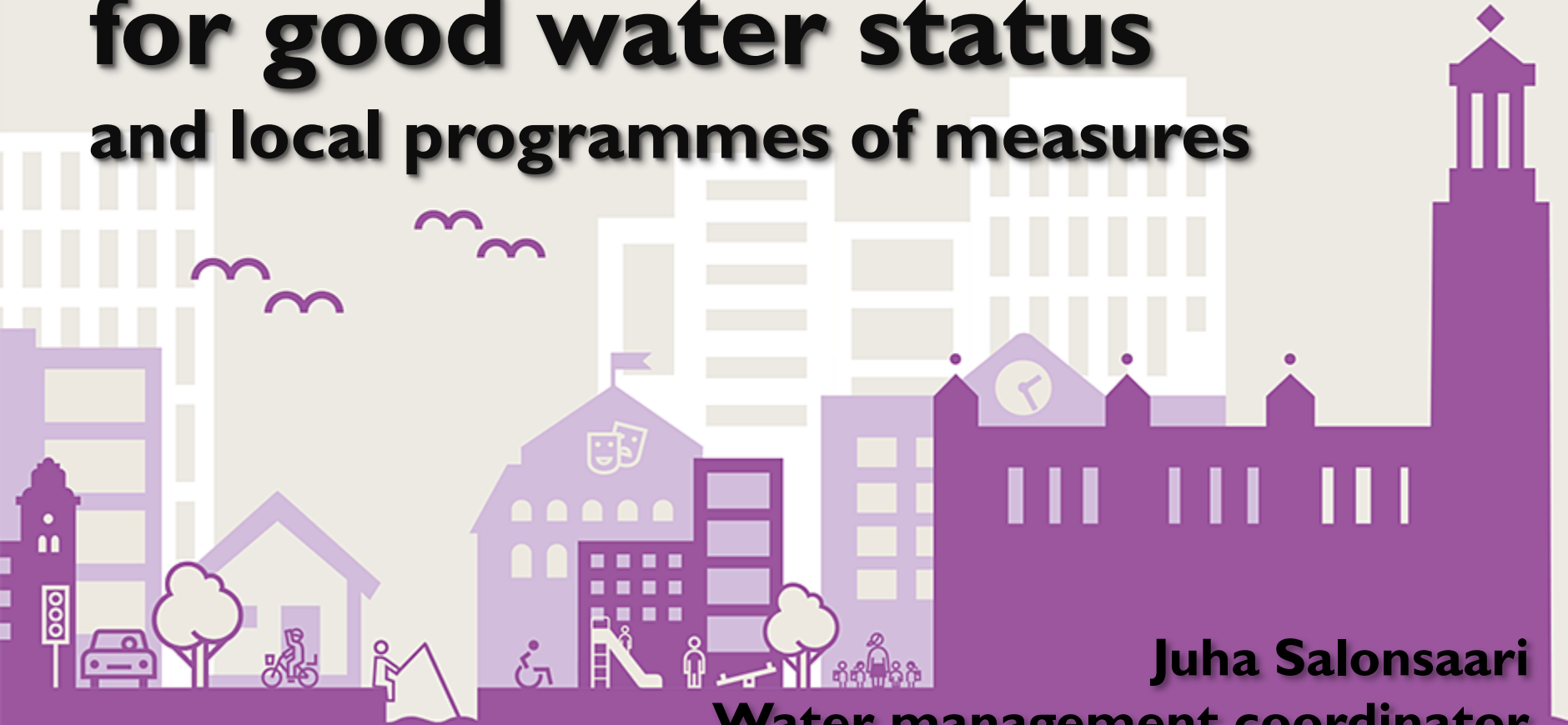






Stockholms
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The Stockholm action plan for good water status and local programmes of measures



Juha Salonsaari
Water management coordinator
City of Stockholm

Measures for better water quality - the past and future challenges

- The first "water management programme" was adopted in 1973. Hard work and successful collaboration lead to great improvements.
- Treatment of wastewater and stormwater have improved and lake restoration has been carried out, but there is still much to do.
- The concentrations of phosphorous has declined in all lakes compared to the 1990:s.
- The action plan for good water status and the local programmes of measures creates a basis for reaching the environmental goals at the same time that the city is expanding.



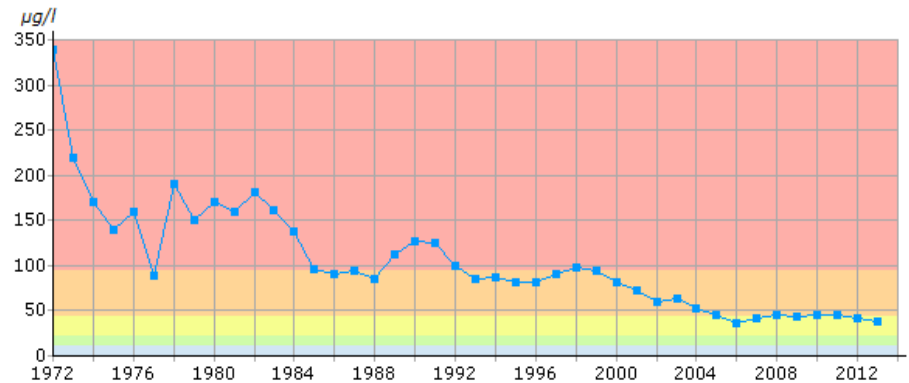
Lake Drevviken – an example of great improvements since the 1970:s



Ytvattnets innehåll av totalfosfor i augusti, rullande 3-års medelvärden.

Välj vattenområde

Välj tidsperiod



Tillstånd:

■ Höga halter

Trend:

→ förbättring sedan 2000

Senaste värdet:

38 µg/l (2013)

Utgångsvärde:

82 µg/l (2000)

Datakälla:

Stockholm Vatten

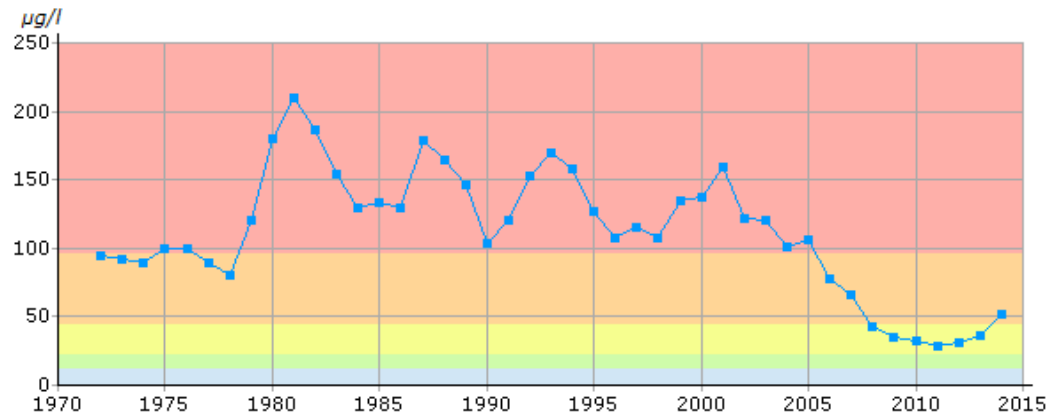
Lake Långsjön – an example of the effectiveness of phosphorous immobilization with aluminium chloride



Ytvattnets innehåll av totalfosfor i augusti, rullande 3-års medelvärden.

Välj vattenområde

Välj tidsperiod



Tillstånd:

Mycket höga halter

Trend:

→ förbättring sedan 2000

Senaste värdet:

52 µg/l (2014)

Utgångsvärde:

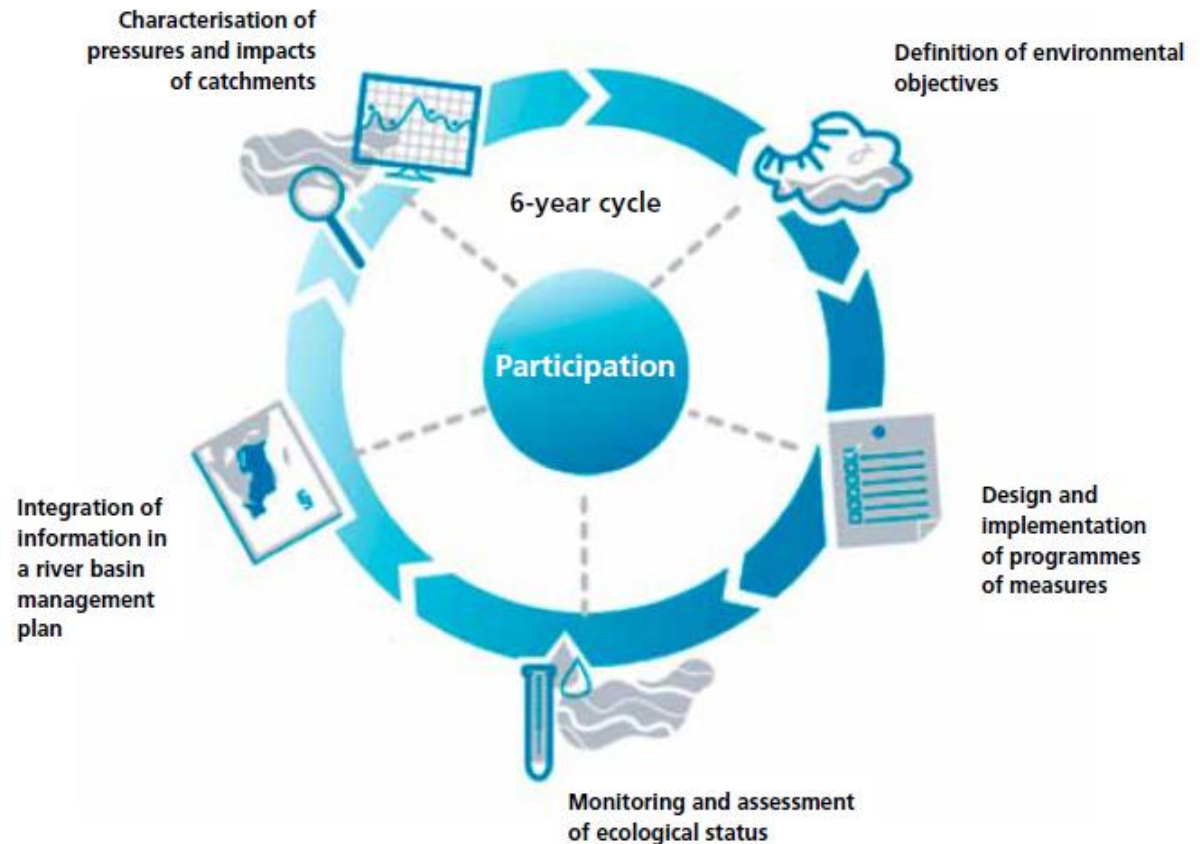
140 µg/l (2000)

Datakälla:

Stockholm Vatten

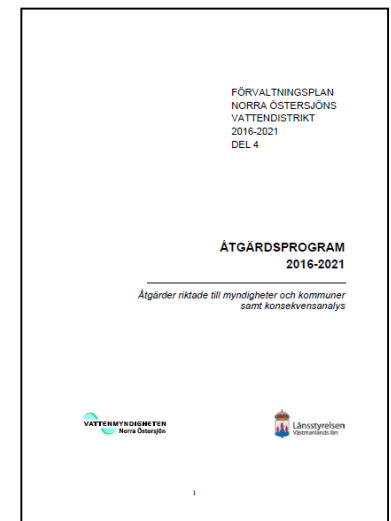
The water framework directive – purpose and goals

“Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such”



The water framework directive and Swedish legislation

- Five river basin authorities conduct five separate river basin management plans including programmes of measures and EQS (environmental quality standards).
- The river basin management plans and the programmes of measures states:
 - current water status,
 - needs of improvement,
 - environmental quality standards (EQS),
 - overall measures and the administrative measures needed to reach the goals (EQS)
- According to Swedish legislation authorities and municipalities are obliged to follow the programmes of measures in the river basin management plans as well reach and maintain the EQS.



What is the value of good water status in Stockholm?

Water related ecosystem services are key factors for a living city

- Drinking water of good quality
 - Clean water for swimming
 - Beautiful shorelines
 - Extensive boat-life
 - Rich biological diversity
 - Unique angling
-
- The value of good status is estimated to 250-280 million €



The lakes and streams of Stockholm

Major environmental impacts:

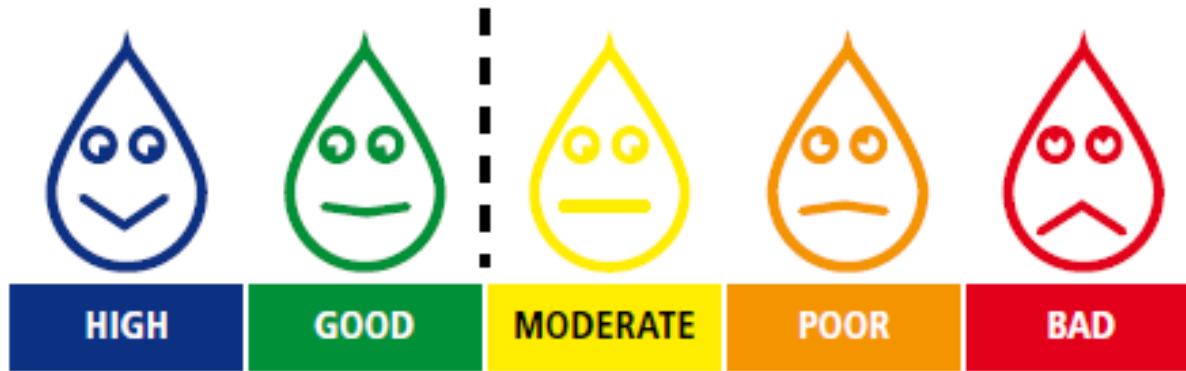
- Eutrophication, hazardous substances and altered habitats

Major sources of pressure:

- Contaminated stormwater from industrial land use, roads and urban land use.
- Untreated wastewater from storm overflows and misconnections in the wastewater and stormwater system.
- “Old sins” – mostly untreated urban wastewater, industrial wastewater and land use.
- Morphological alterations due to exploitation in water and near the shoreline as well as culverts and other migration barriers.



Classification of status



Ecological status



Good chemical status



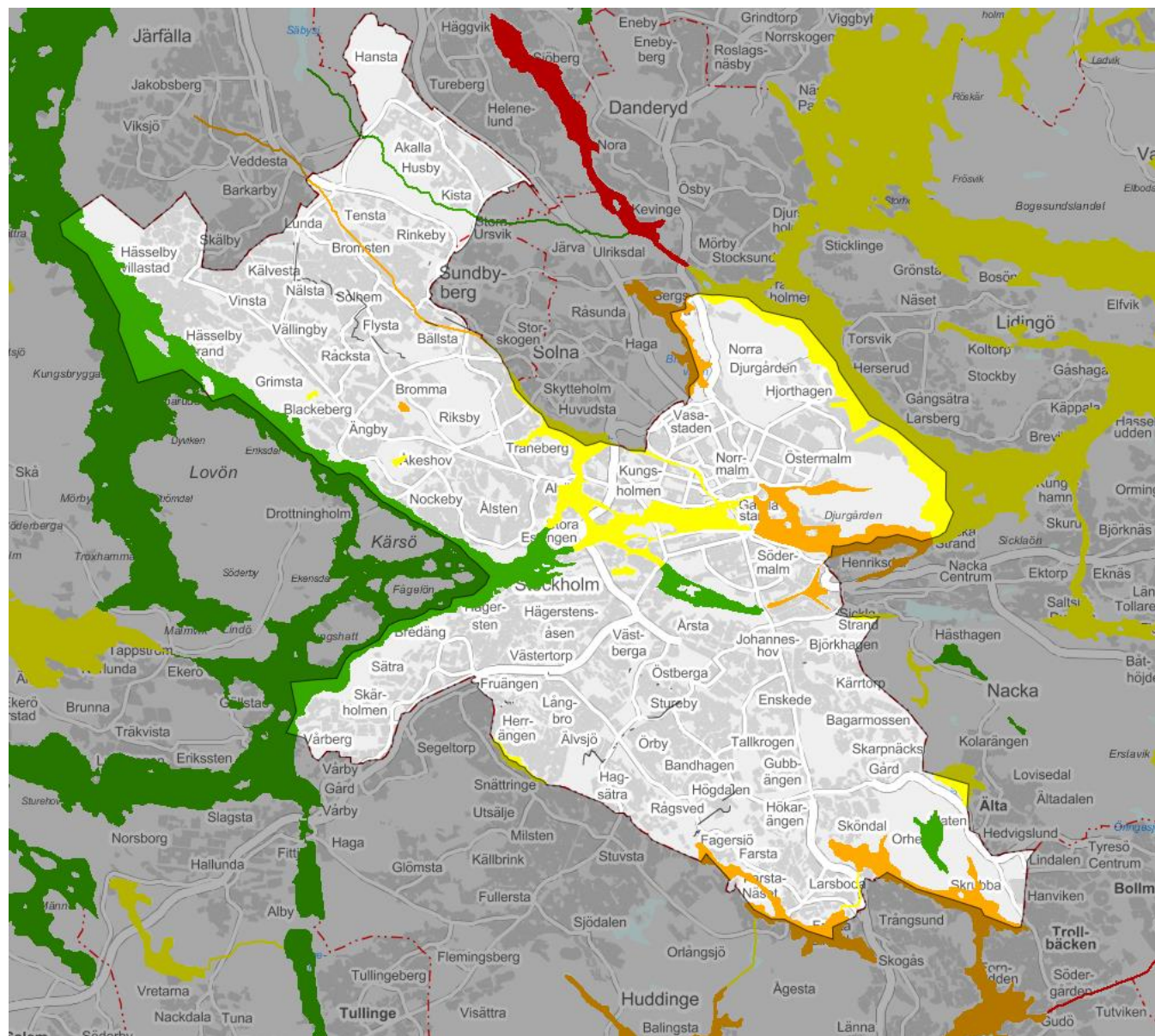
Fails to achieve good chemical status



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Ecological status

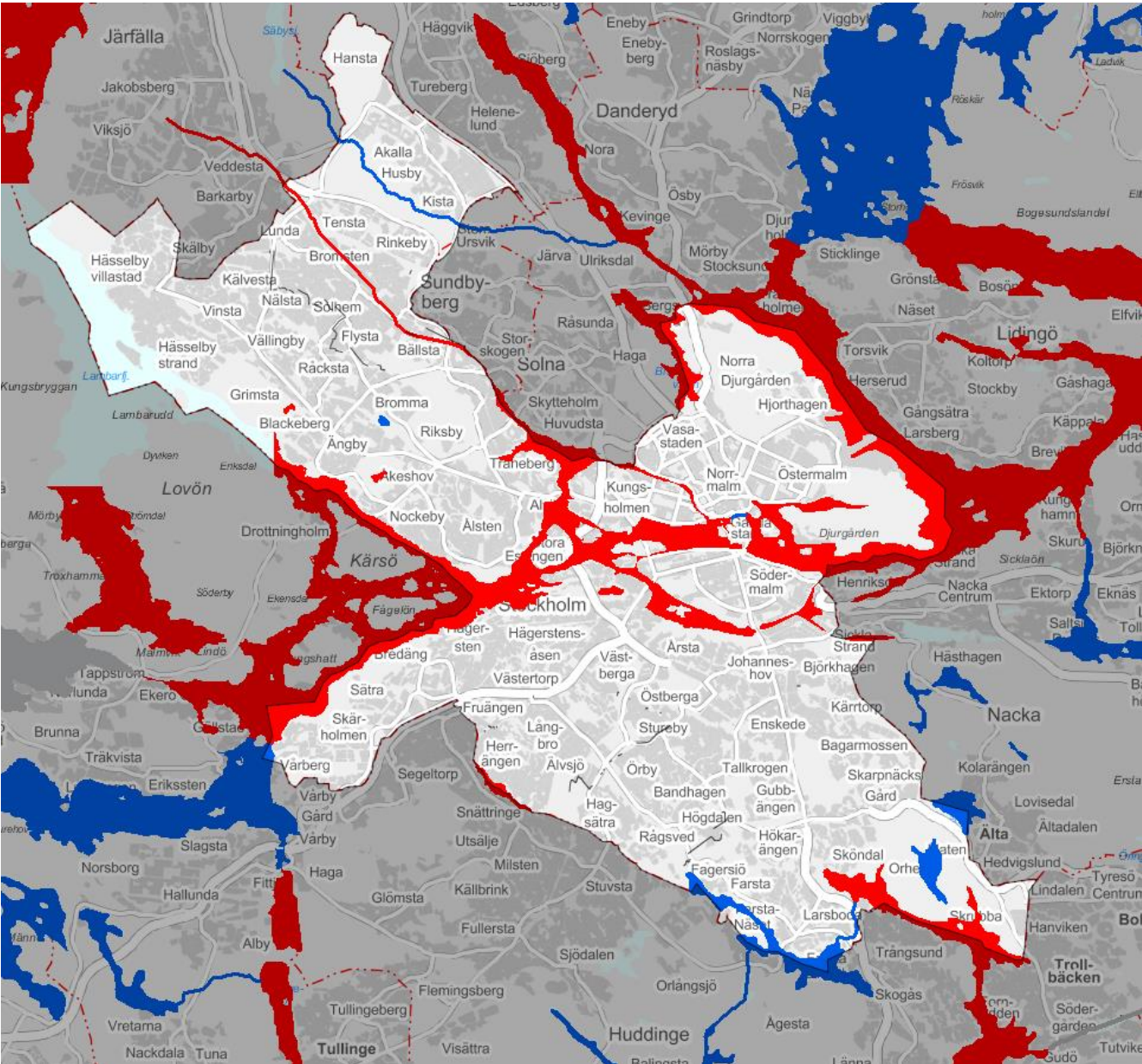
- High ecological status
- Good ecological status
- Moderate ecological status
- Poor ecological status
- Bad ecological status



Stockholms stad

Chemical status, excluding mercury and PBDE*

- Blue Good chemical status
- Red Fails to achieve good chemical status



* PBDE = Polybrominated diphenyl ethers, organobromine compounds often used as a flame retardant



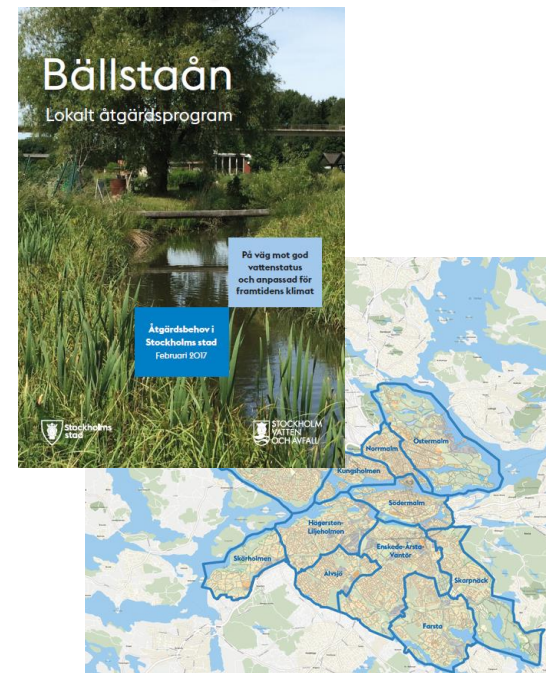
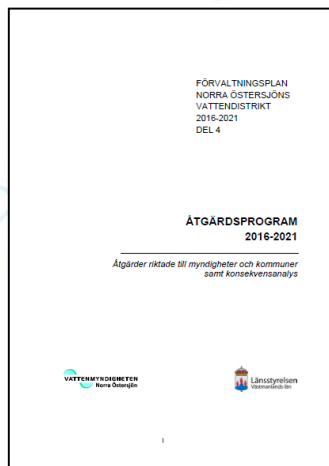
From regional management to local action plans

Classification of status, analysis of pressures, and physical measures

Water district management plan and PoM:s

Action plan for good water status

Local programmes of measures with information about where, how, when, by whom and to which cost



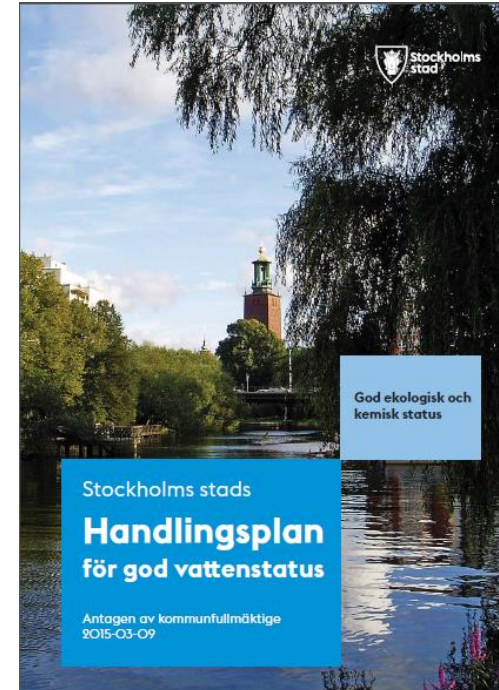
The action plan for good water status and local programmes of measures for implementation

The aim of the action plan

- States how the water management within the city has to adapt and develop in order to gain focus on more operational measures and reach the goals of the water framework directive.

A new overall target for the water management within the city

- The lakes, coastal waters and streams within the city of Stockholm shall reach the environmental targets for water – in most cases good ecological and chemical status by 2021 or 2027.
- To reach the target local programmes of measures has to be completed by latest 2019.



A new strategy for stormwater management

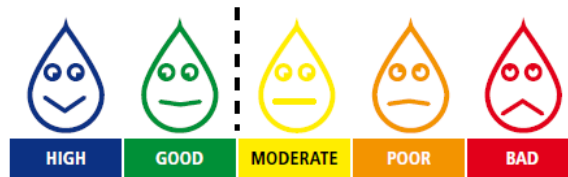
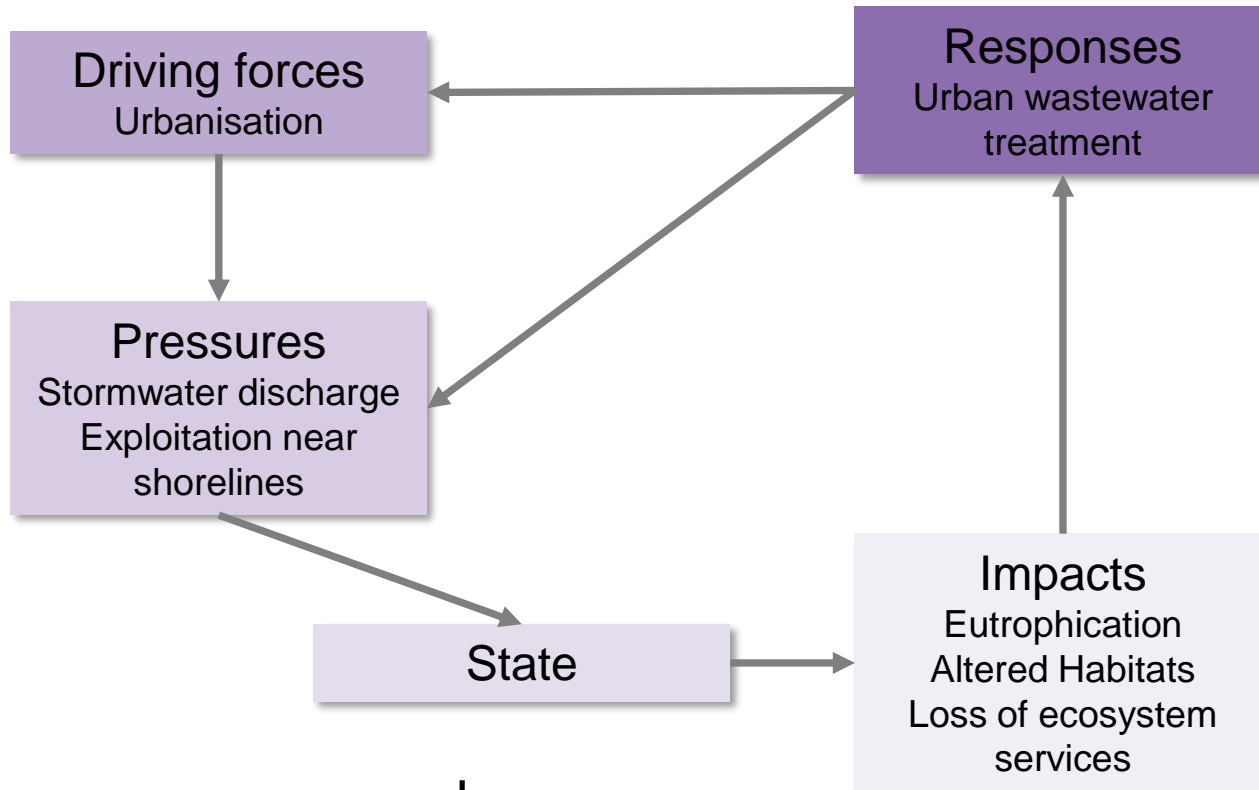
The city council adopted a new strategy for storm water management in 2015.

The strategy will be used by all the administrations within the city and is based on the following four keypoints:

- Improved water quality within the city.
- A robust and climate adapted storm water treatment.
- Stormwater management will gain values for the city and become a resource
- Stormwater management has to be environmentally and economically effective.



The DPSIR-approach

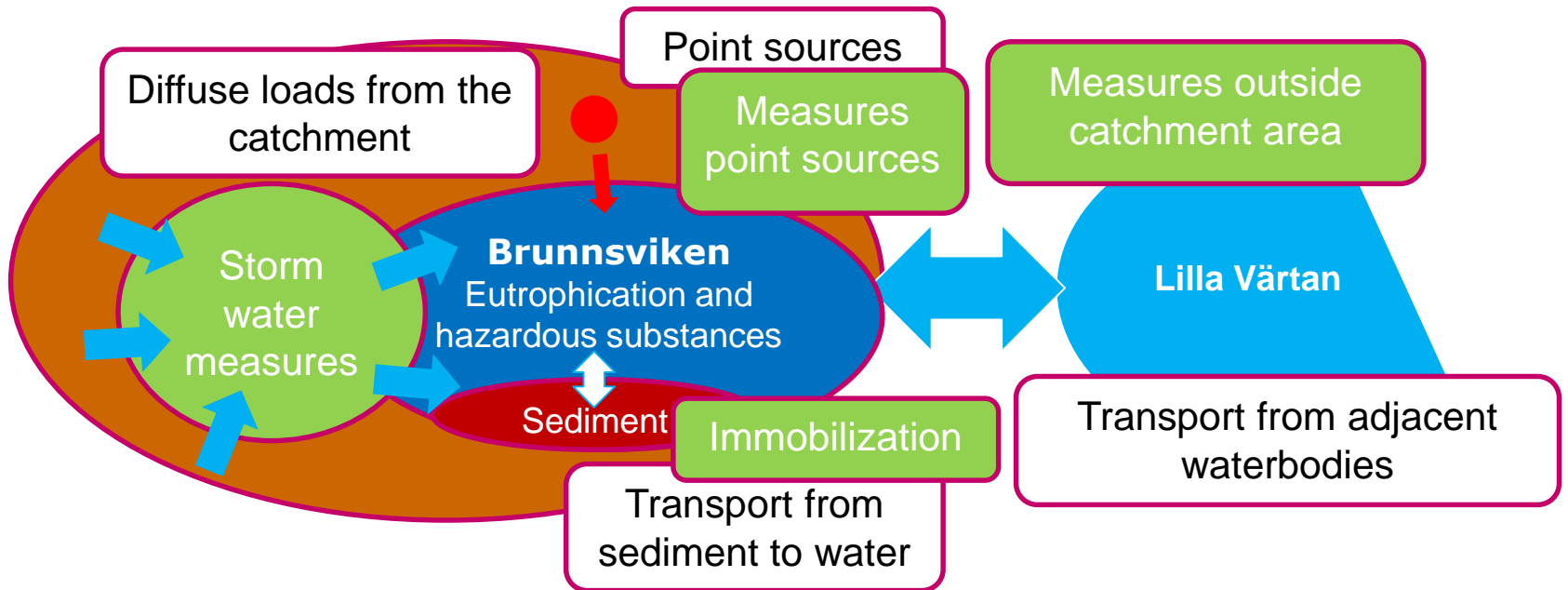


General disposition of Local programmes of measures

- Summary
- Why do we need Local PoM:s?
- Ecological and chemical status
- Need of improvement
- Pressure analysis
- Completed measures
- Ongoing and planned measures
- Proposed new measures
- General measures
- Need of further data
- Summary of costs and effects



Measures in the Brunnsviken catchment area



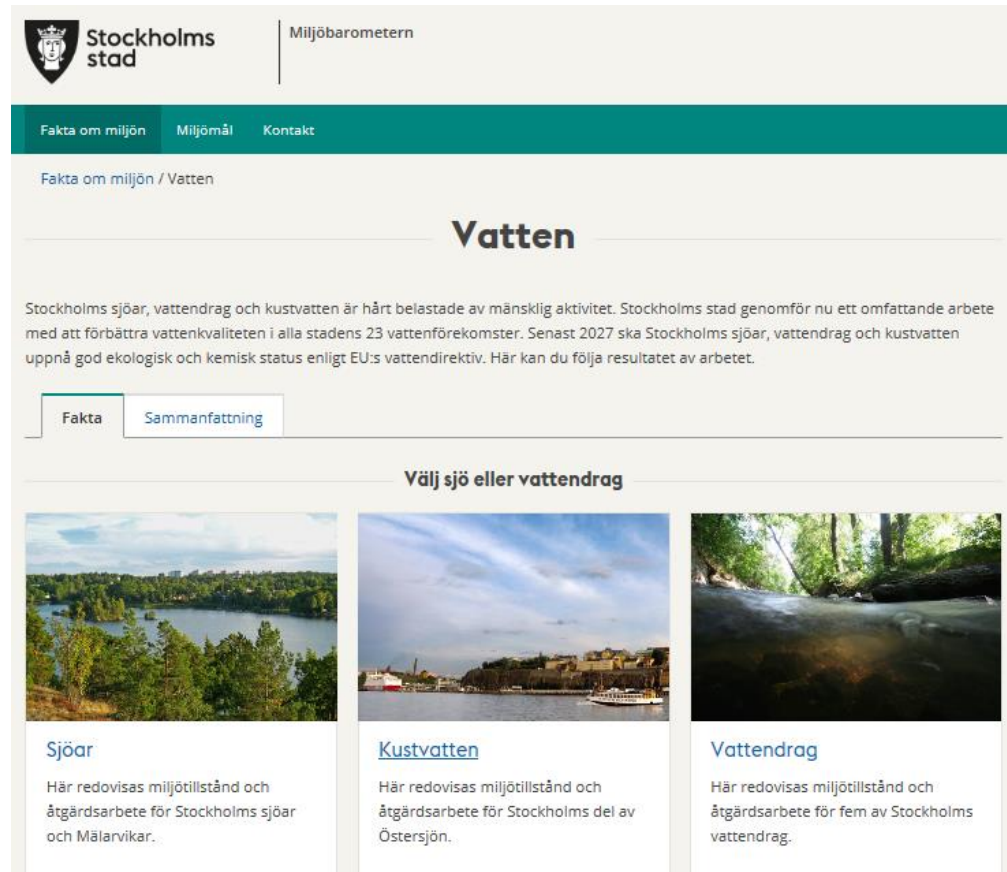
Potential conflicting interests and pitfalls to take into account

- The growing city. 140 000 new households and 300 000 new inhabitants by year 2030.
- Upstream impact – a subject for interaction within the catchment.
- Finance. PPP of course, but who is responsible for old sins?
- Large parts of the legislation is often too blunt to act as effective as we need.



More information on Miljöbarometern

In the website [Miljöbarometern](http://www.miljobarometern.stockholm.se) you can find targets, indicators, environmental conditions and measures.



The screenshot shows the Stockholm City website's 'Miljöbarometern' section. At the top left is the Stockholm City logo. To its right is the text 'Miljöbarometern'. Below this is a teal navigation bar with three tabs: 'Fakta om miljön', 'Miljömål', and 'Kontakt'. Underneath the navigation bar is the breadcrumb 'Fakta om miljön / Vatten'. The main heading is 'Vatten'. Below the heading is a paragraph of text: 'Stockholms sjöar, vattendrag och kustvatten är hårt belastade av mänsklig aktivitet. Stockholms stad genomför nu ett omfattande arbete med att förbättra vattenkvaliteten i alla stadens 23 vattenförekomster. Senast 2027 ska Stockholms sjöar, vattendrag och kustvatten uppnå god ekologisk och kemisk status enligt EU:s vattendirektiv. Här kan du följa resultatet av arbetet.' Below the text are two tabs: 'Fakta' (selected) and 'Sammanfattning'. Underneath is the heading 'Välj sjö eller vattendrag'. There are three columns, each with a photo and a text block. The first column has a photo of a lake and the heading 'Sjöar', with text: 'Här redovisas miljötilstånd och åtgärdsarbete för Stockholms sjöar och Mälärvikar...'. The second column has a photo of a coastal town and the heading 'Kustvatten', with text: 'Här redovisas miljötilstånd och åtgärdsarbete för Stockholms del av Östersjön...'. The third column has a photo of a stream and the heading 'Vattendrag', with text: 'Här redovisas miljötilstånd och åtgärdsarbete för fem av Stockholms vattendrag.'

Urban Water Agenda 2030



Gunnar Söderholm
Head of the Environment and
Health Administration
City of Stockholm