

Facts and Figures 2017



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Who are the StEB?

The Cologne Drainage Utility (Stadtentwässerungsbetriebe Köln, AöR "StEB Köln") is a water management service provider and therefore a key component of public services. It was established in May 2001 as a municipal company of the City of Cologne and is continuing the long-standing successful work of the former waste water authority (Amt für Stadtentwässerung) of the City of Cologne. Its primary objective is waste water disposal, but new tasks have been added to the StEB Köln's portfolio in recent years. This currently involves responsibility for construction-related measures for structural flood protection and preventive flood protection as well as maintaining streams and ponds in the City of Cologne.

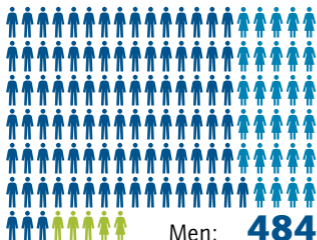
With the exception of drinking water supply, all key water management tasks of the City of Cologne are pooled at StEB Köln. This creates synergies and allows StEB Köln to adopt a sustainable and holistic approach as well as to assume responsibility for integrating the developed solutions into a wider range of tasks.

StEB Köln also offers its extensive, all-encompassing expertise on its entire scope of activities to other municipalities, communities and private individuals within its legal capabilities. These services include consulting, implementing specific measures and waste water disposal.

For all its activities, the emphasis is on quality, overall efficiency and sustainability.

In a capacity that reaches beyond fulfilling its core tasks, StEB Köln sees itself as an entity that helps to shape Cologne's urban environment. A pioneering human resources policy is an important foundation for its work.

EMPLOYEES **641**



Men: **484**

Women: **157**

of whom **25** are apprentices

Average AGE
of employees



45.6 years

WASTE WATER CHARGES



SEWAGE

1.54 EUR/m³

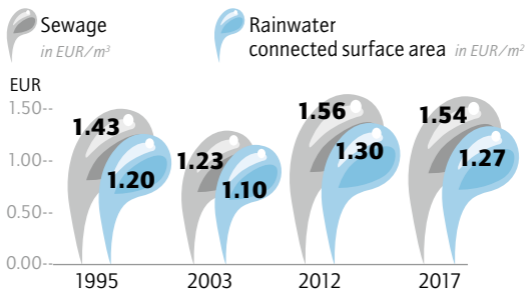


RAINWATER

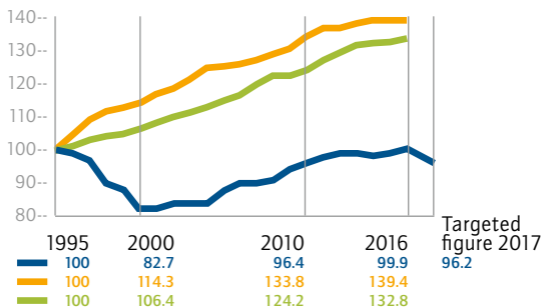
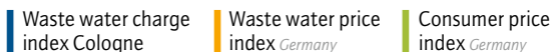
1.27 EUR/m²

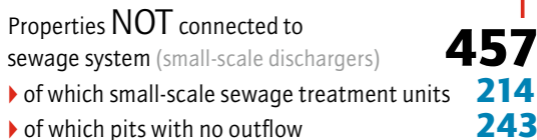
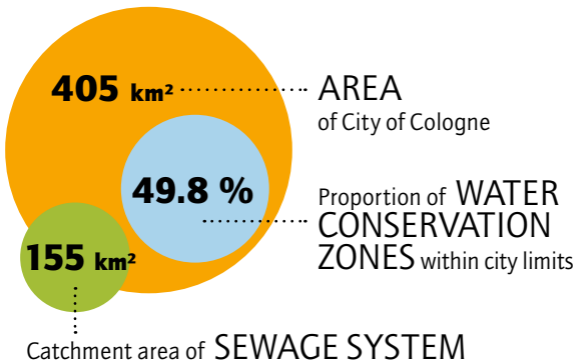
Area connected to
drainage network

Development of WASTE WATER CHARGES



LOAD OF HOUSEHOLDS price index Cologne by national comparison





TASKS

Waste water disposal and road drainage

- ▶ **Collection**, waste water **disposal** in sewage treatment plants using a mixed system
- ▶ Differentiated **collection, disposal** and **treatment** of rain water
- ▶ **Purification** of waste water in sewage treatment plants
- ▶ **Returning** purified waste water into water bodies
- ▶ **Disposal** or recycling of residues of waste water and sewage system cleaning
- ▶ **Disposal** of faeces from sewage treatment plants, septic tanks and chemical toilets
- ▶ **Operation** and **maintenance** of street drainage facilities

SEWER NETWORK LENGTH (Gravity sewage)

2,373 km

walkable

not walkable



605 km

1,768 km

(profile height $\geq 1,200$ mm)

(profile height $< 1,200$ mm)



5 SEWER CLEANING VEHICLES

Annual cleaning
capacity

250 km

PRESSURE LINES

41.8 km

MANHOLES **58,054**

PUMPING STATIONS

149



PURIFICATION BASINS for rainwater

199 of which **84**
rainwater retention basins

OPERATING SLIDES **260**

FLOOD WATER SLIDES **834**

ROAD GULLIES **97,071**



4 GULLY CLEANING VEHICLES

Annual cleaning
capacity

88,062
gullies

TASKS

By providing waste water disposal, we also ensure:

- ▶ the **construction, expansion, maintenance** and **refurbishment** of drainage systems and sewage treatment plants while optimising facilities from an ecological, technical and economic perspective
- ▶ the **implementation** indirect discharger monitoring
- ▶ the **sampling** and **analysis** of waste water and residual substances from the cleaning process

4 WASTE WATER TREATMENT PLANTS

5 INCL.
WWTP
WAHN



Waste water treatment plant (WWTP)	PT*	Max. rainwater inflow in m ³ /s
Large WWTP Stammheim	1,570,000	9.2
WWTP treatment plant Rodenkirchen	88,000	0.59
WWTP Weiden	80,000	0.64
WWTP Langel	130,000	0.70
WWTP Wahn (operated by StEB)	92,000	0.80

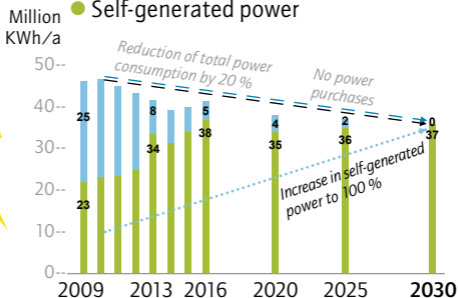
CAPACITY

Total treatment plants

PT*
1.96 mil.

Development of ELECTRICITY CONSUMPTION at Cologne's treatment plants

- Power purchased from utilities
- Self-generated power



Indirect discharger MONITORING DATA

Total number of recorded measuring stations for indirect discharger monitoring	2,732
Inspections carried out as part of indirect discharger monitoring	2,688
Measuring stations with regular inspections	1,319

*PT = sum of population and population equivalent

TASKS

- ▶ **Structural and preventive flood protection** underground (adjustments to sewage system) and above ground (building and maintaining walls, dykes, flood protection gates, protective walls, bulkheads and movable elements, pumping stations)
- ▶ **Flood management** with implementation of a flood protection centre comprising representatives of StEB, road construction, the professional fire department, the police force, the armed forces and non-public service providers such as THW and DLRG etc.

FLOOD PROTECTION FACILITIES ON THE RHINE

Total length of bank of Rhine: **69.91 km**

0.32 km

32.24 km

Up to **10.70 m**
Cologne gauge
protected riverbank

Up to **11.30 m**
Cologne gauge
protected riverbank

- ▶ **Implementation of flood protection concept**
- ▶ **Raising awareness** among the population through
 - precautionary land use
 - building precautions
 - behavioural precautions
 - Risk prevention
- ▶ **Information** using flood hazard maps (depth and extent of flooding)

37.35 km

10.27 km

Total length of
mobile flood
protection elements

Up to **11.90 m** Cologne gauge
protected riverbank

Length of flood
crossings:  approx.
2 km

TASKS

- ▶ **Care and maintenance** of Cologne's streams (flowing water with exception of the Rhine)
- ▶ **Construction works** related to water bodies and naturalised development of water bodies in relation to Cologne's streams
- ▶ **Operating** technical facilities related to Cologne's streams
- ▶ **Maintaining** Cologne's ponds and protecting the fish population
- ▶ **Ensuring** sufficient water quality and quantity of ponds
- ▶ **Operating** technical equipment of the ponds and ensuring traffic safety of waterfront structures and ice free surfaces

WATERWAYS and PONDS in the City of Cologne

OPEN streams **70.7 km**

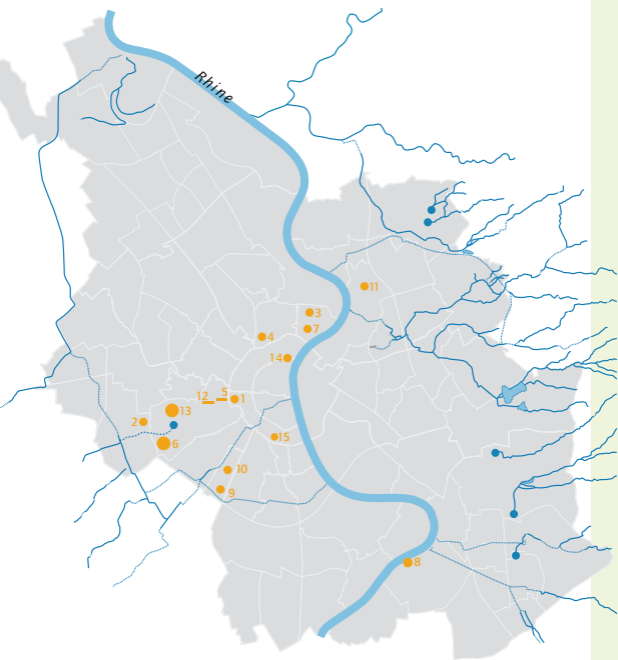


CANALISED streams **19.7 km**



PONDS **15**





— Streams ● Ponds



Do you have any questions?

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