

A new wastewater treatment  
system for future generations

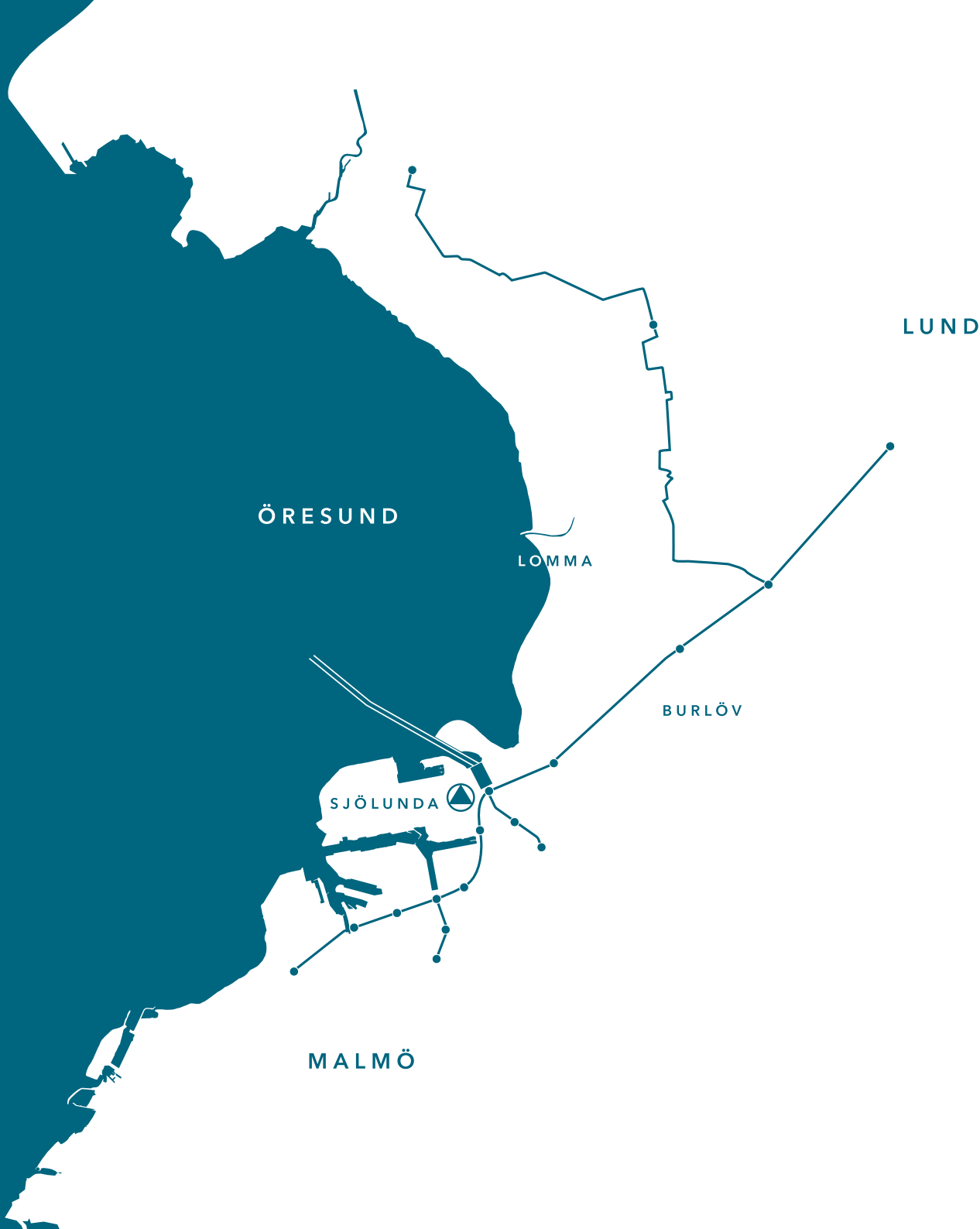
## Why MAXIMA?

At the turn of the 20th century, coastal cities started to dispose of their wastewater into the Öresund in order to protect the health of their citizens. In 1952, the combination of wastewater and summer heat caused what came to be known as "the Great Stench". It was then decided to build the Sjölunda wastewater treatment plant. The new plant was inaugurated in September 1963, and has since been developed in stages.

Much like the rest of Sweden, the wastewater infrastructure of southwestern Skåne is now out-of-date and in need of expansion and modernisation to meet the needs of a growing population. Stricter treatment standards for wastewater, together with the need for societies to adapt to climate change also increase the need for regeneration. However, these requirements are often too challenging for a single municipality to handle on their own.

VA SYD's approach to tackle this challenge is to invest in MAXIMA, a regional wastewater treatment system bringing greater benefits to several municipalities at a lower cost. The name MAXIMA derives from Cloaca Maxima - one of the world's oldest sewer systems. It was built by Roman engineers over 2000 years ago, and parts of it are still in use today.

We are building on history - for a better future.



A stylized teal illustration of a cityscape. It features several buildings of varying heights and window patterns. In the foreground, there are two trees with rounded canopies. Three birds are flying in the sky above the buildings. The entire illustration is rendered in a solid teal color against a white background.

## Ensuring growth and meeting the needs of a growing population

Climate change, population growth and urban development continuously demand expansion and modernisation of the wastewater treatment system. This is essential for society to function, grow and be attractive to citizens and businesses.

Through increased capacity in a modern and reliable wastewater treatment system, we meet these demands in a robust and sustainable way. Moreover, the ground above the wastewater tunnels can be used for urban development or agriculture, which is a major advantage compared to traditional pipe expansion.

### Adapting to climate change

The sea levels will keep rising and we respond to this challenge by redeveloping the Sjölunda wastewater treatment plant to withstand estimated sea level rises up to the year 2100. In this way, VA SYD delivers safe and dependable wastewater treatment for generations to come.

## Protecting our aquatic environments where we want to live and work

MAXIMA will make a big difference for the aquatic environments in the region, protecting plant- and wildlife in the Öresund, as well as the sensitive coastal areas. The bathing water in Lomma bay will be cleaner and the canals of Malmö will have better prospects for staying nice and neat.

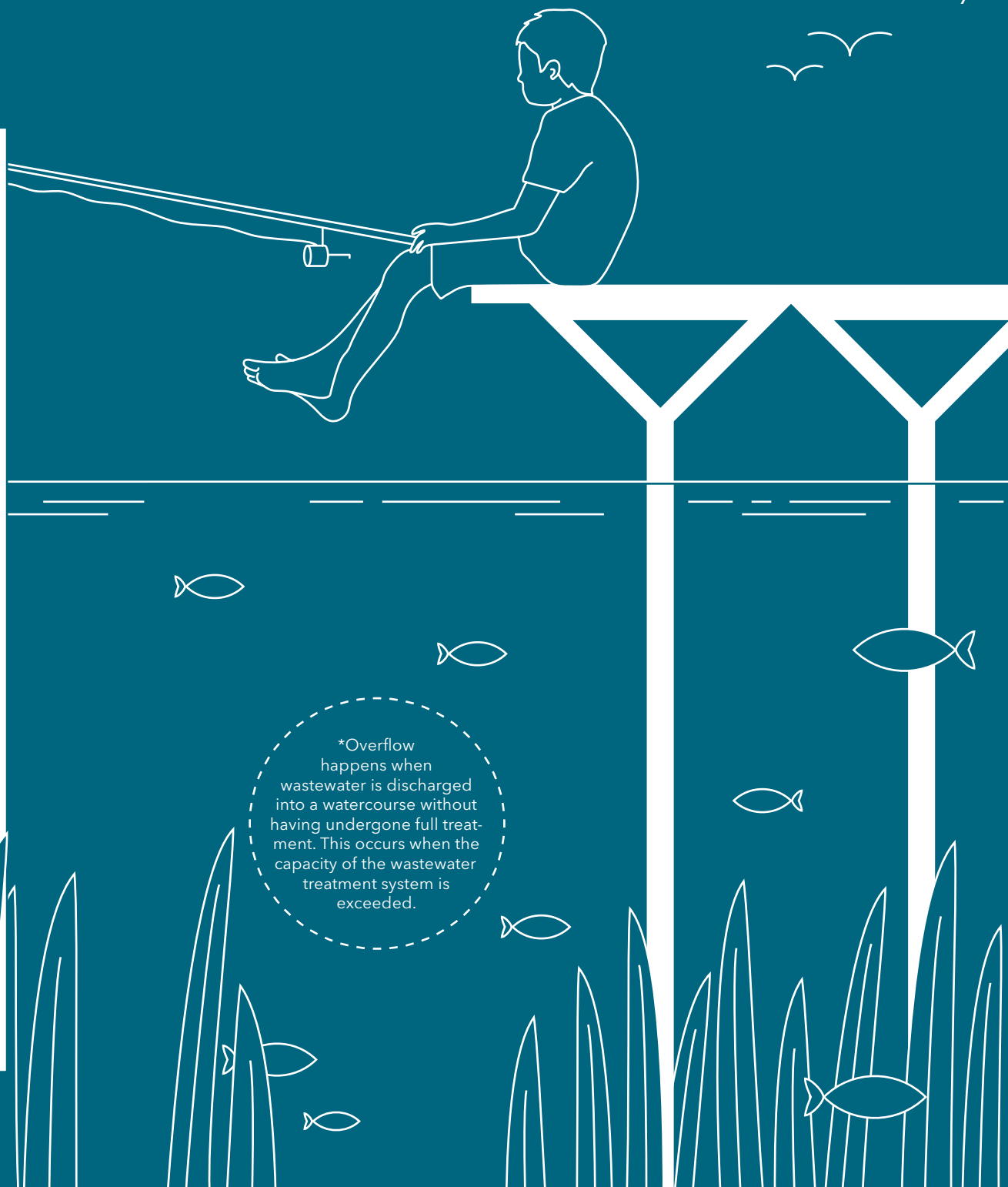
- **Discharging cleaner water further out in the Öresund**

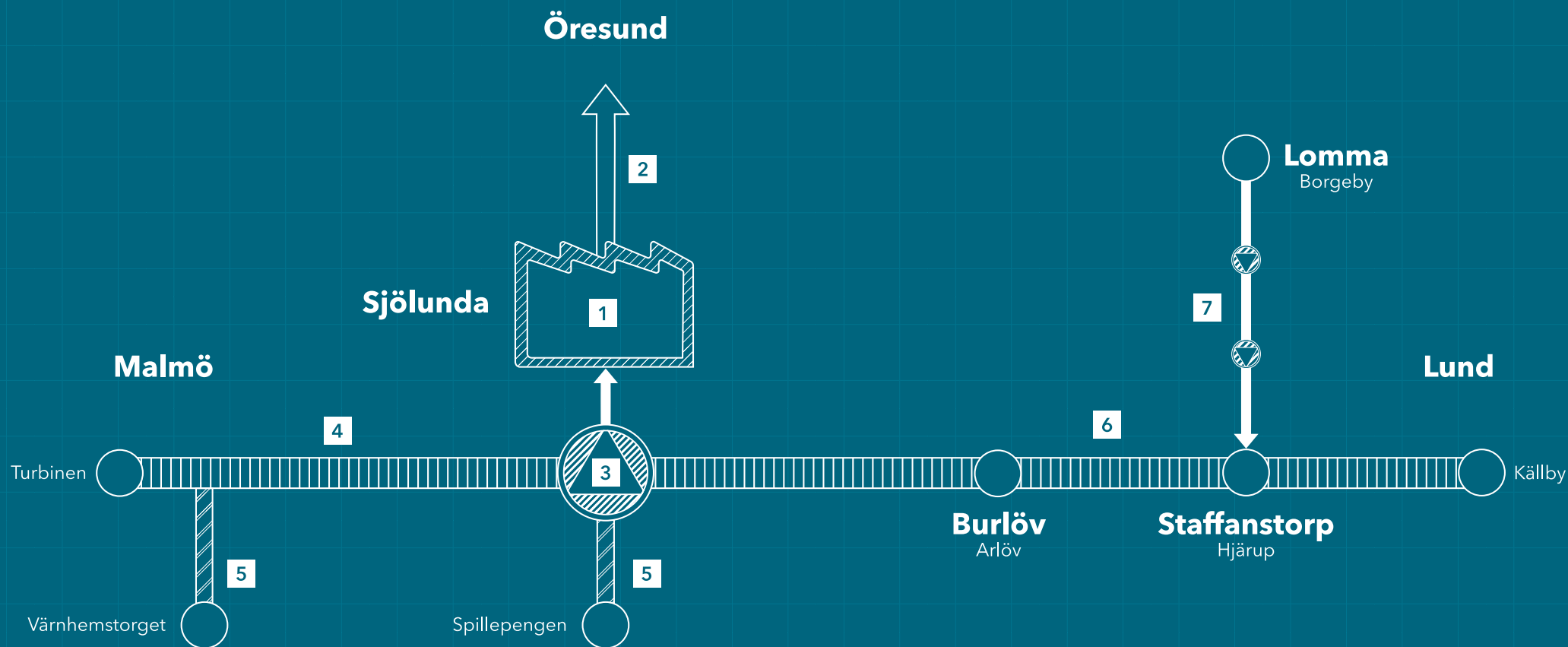
With new, improved technology at Sjölunda wastewater treatment plant and new outfall pipelines leading the treated wastewater further out into more fast-flowing water, the impact on the aquatic environment will be substantially reduced. In addition to this, MAXIMA enables the decommissioning of local plants upstream from Lomma bay, which will reduce emissions even further.

- **Minimising overflow\***

Thanks to the storage capacity of the new wastewater tunnels, the quantity of overflow discharge will be greatly reduced. Overflow means that untreated wastewater is discharged into nearby waterways, such as the Malmö canals. Also, there will be no overflows from Sjölunda wastewater treatment plant discharged into the Öresund, since the incoming wastewater will be pumped to the plant at a rate optimal for the plant's function and capacity.

\*Overflow happens when wastewater is discharged into a watercourse without having undergone full treatment. This occurs when the capacity of the wastewater treatment system is exceeded.



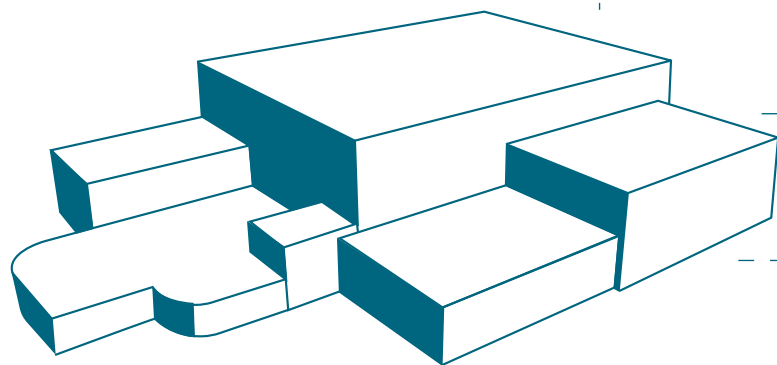


The **MAXIMA** wastewater treatment system consists of several parts – a rebuilt Sjölanda wastewater treatment plant with new outfall pipelines into the Öresund, a large new pumping station nearby Sjölanda wastewater treatment plant, a wastewater tunnel under Malmö, a wastewater tunnel from Lund and a pressurised transfer pipe from Borgeby.

The system is scheduled to be completed and commissioned by 2035, and will meet the need for wastewater treatment in the municipalities of Burlöv, Lomma, Lund and Malmö, as well as receive wastewater from parts of the municipalities of Staffanstorp and Svedala.

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|--|---|
| <b>1</b> Sjölanda wastewater treatment plant | <b>5</b> Two connecting micro tunnels   |
| <b>2</b> Two new outfall pipelines           | <b>6</b> The northern wastewater tunnel |
| <b>3</b> Sjölanda pumping station            | <b>7</b> A pressurised transfer pipe    |
| <b>4</b> The southern wastewater tunnel      |   |

## THE SJÖLUNDA WASTEWATER TREATMENT PLANT



The new **membrane bioreactor treatment process (MBR)** is both treatment- and space-efficient



The redeveloped plant will be capable of processing wastewater from about **700 000 people** (compared to 350 000 at present)



The wastewater treatment plant will be built in stages over a period of about **8 years**, and continue to be in operation throughout the construction period



The new **4 kilometres** long outfall pipelines will discharge cleaner water further out in the Öresund



The wastewater tunnels can store a total of **180 000 cubic metres** of wastewater



The tunnels are bored **20-35 metres** under ground



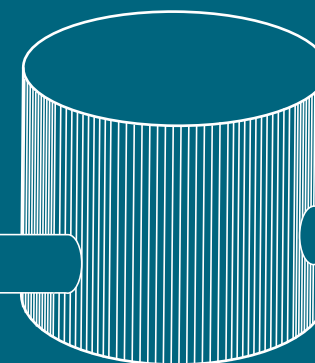
**15 shafts** are constructed along the tunnel route



The pumping station has the capacity to pump a total of **10 cubic metres** of wastewater per second to the treatment plant



A **pressurised transfer pipe** connects Borgeby to the northern wastewater tunnel



The internal diameter of the tunnels is **2-5 metres**



The main- and micro tunnels have a total length of **18 kilometres**

MAXIMA is a joint regional wastewater treatment solution, designed to meet the challenges of a growing population, stricter treatment standards and climate change. Through this infrastructure investment, VA SYD creates a sustainable and robust wastewater treatment system in order for more people to live and work in southwestern Skåne.



Read more and follow the progress on [maxima.vasyd.se](https://maxima.vasyd.se). Here you can also sign up for our newsletter. If you have any questions, please send an email to [kund@vasyd.se](mailto:kund@vasyd.se) or call **040-635 10 00**.



VA SYD is one of Sweden's largest organisations working with water, wastewater treatment and waste management, supporting smart solutions in the municipal development. Our operations are open 24/7, has over half a million customers and a turnover of one and a half billion SEK per year.