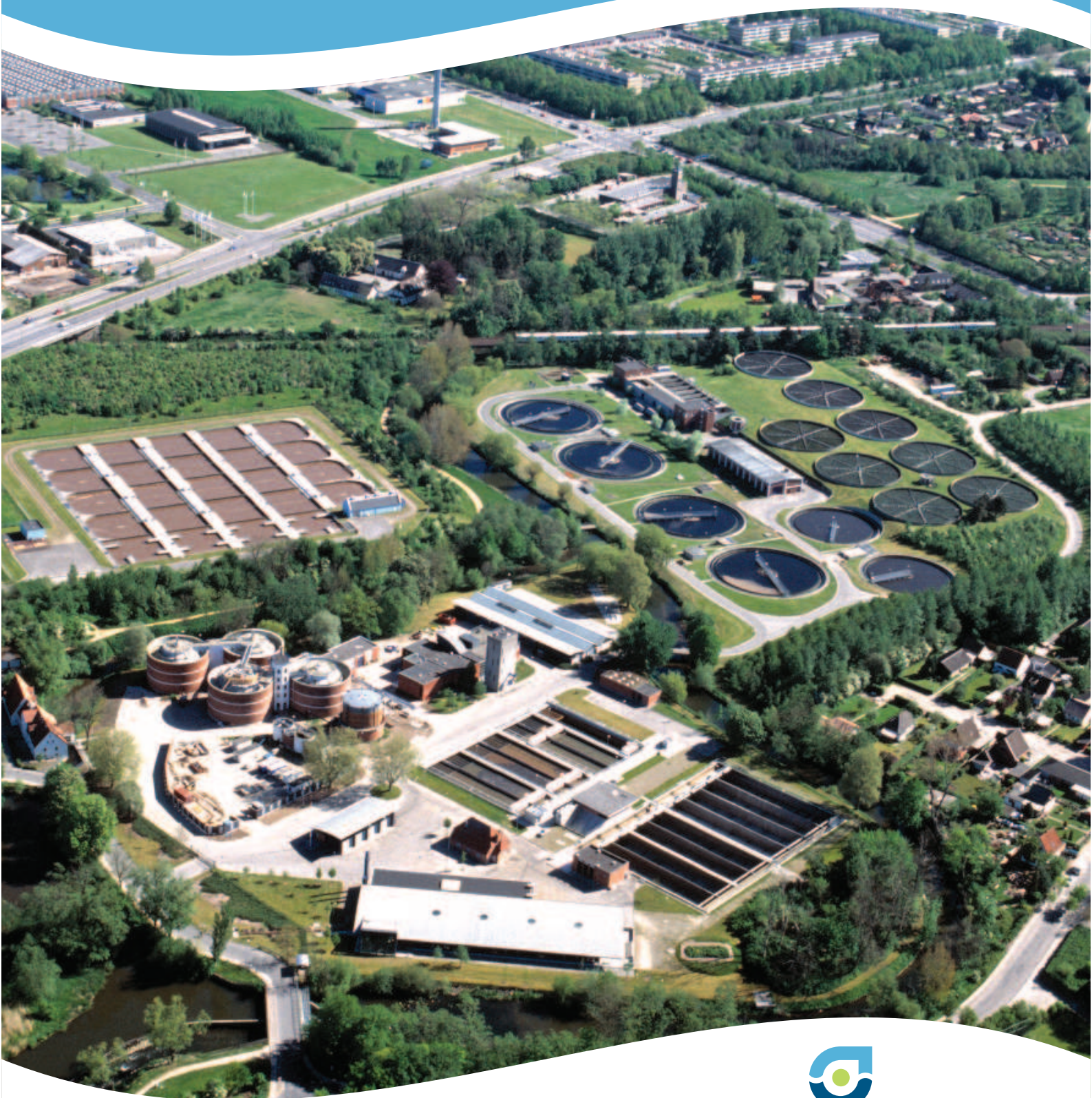


Creating the WWTP of the future





Creating the WWTP of the future

VCS Denmark is a frontrunner in the Danish water and wastewater industry. We strive for excellence in everything we do – and we have committed ourselves to the ambitious goal of becoming carbon neutral as the first water and wastewater company in Denmark.

As part of our effort to reach this goal – and beyond – we wish to turn our primary wastewater treatment plant in the city of Odense, Ejby Mølle, into the plant of the future. Nothing less.

We are looking for a consultant that can inspire us and be part of this process.

In our striving for excellence we have already achieved remarkable results at the plant in the areas of effluent quality, energy reduction and production of renewable energy.

Our average discharge levels are well below the very stringent, official Danish discharge levels, with a yearly average of: BOD < 1.2 mg/l; Suspended solids < 5 mg/l; Total Nitrogen < 3.8 mg/l; Total Phosphorus < 0.1 mg/l.

We continuously strive to reduce energy consumption. And our efforts to increase our production of renewable energy from biogas, so far, have made us 80 % self-supplying with electricity.

But our ambitions reach even further.

We wish to reduce the overall environmental impact of our activities even more than we already have. By reducing our energy consumption and our emission of greenhouse gases significantly – and by increasing our production of renewable energy. Without ever compromising our excellent effluent quality.





The aim of this project is to analyse the potential for improvements – and to describe how we can turn our plant into one of the very best WWTPs in the world.

The project shall result in one or more reports containing:

- A comprehensive analysis of existing treatment and production facilities, including calculations of mass balances for all important compounds in the treatment process
- Clear descriptions of recommendations for operational changes, and development of project ideas for future implementation. All recommended changes shall be fully documented with regards to operational and overall environmental impact, as well as include a full cost overview.

Interested?

If you are interested in participating in the project, please send a short description of your team, including references, before December 21st 2011 to: Senior Project Manager, Per Henrik Nielsen, VCS Denmark, phn@vcsdenmark.com.

About our WWTP

The WWTP design capacity is 385.000 EP, and has an average hydraulic load 20 million m³/year. The layout is traditional, with sand and grit removal followed by pre-sedimentation and sludge treatment in thermophilic digesters. Biological nutrient removal is performed in an alternating activated sludge process. The sludge from the biological process is digested and the biogas is utilized in production of power and heat. The plant receives rainwater from the combined sewer system. In case of rain, excessive amounts of water is diverted to the trickling filter system and treated. Some rainwater is stored in a basin. The plant is equipped with a sand filtration system for treatment of the effluent. Sludge is dewatered in centrifuges before being transported off-site for composting.



VCS Denmark

PRACTICAL WATER KNOWLEDGE

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