

Water



Wastewater - Collection, Treatment and Disposal

Safe and hygienic handling of wastewater has been shown to have one of the most significant impacts on the health of a community and on their immediate environment and other's downstream. This applies equally to large communities with sophisticated systems and to small communities with on-site facilities.

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Grontmij | Carl Bro has experience of systems both large and small and can provide expertise in the planning, design, construction and operation and maintenance of entire systems or of specialised components. In addition to conventional works, on larger systems our specialised expertise includes work on tunnelling, pressure management, nutrient removal, sludge treatment and disposal, marine outfalls and, in connection with older systems, sewer cleaning, lining or rehabilitation.



On lower cost schemes or where simpler technology is appropriate, we have specialists in waste stabilisation ponds, biological nutrient removal and in the planning and implementation of on-site systems including ecological sanitation where site conditions or planning horizons dictate such a solution.

In-house specialists in information campaigns, awareness raising, hygiene and health education, institutional development and economic and financial analysis can back up all the above technical expertise.

The effective solution to wastewater disposal problems is a complex mix of technical, social, financial and management skills. The multi-disciplinary expertise available within Grontmij | Carl Bro is a key component of a successful outcome but even more important is the breadth of experience necessary in identifying the appropriate solution for each set of circumstances and the ability to put these solutions into effective practice. This experience is not taught but comes from long experience in different countries and, most importantly, evaluation and adaptation of practice over the years to develop intelligent solutions that work.

Grontmij | Carl Bro provides relevant services such as:

- Planning & Management
- Feasibility Studies and Detailed Design
- Tender Document preparation and construction supervision
- Collection networks
- Effluent quality investigations
- Domestic and industrial sewage treatment
- Sludge treatment and re-use
- Tertiary treatment, effluent polishing and re-use
- Outfalls
- On-site systems including ecological sanitation
- Socio-economic surveys
- Awareness raising
- Participatory approaches
- Culture, gender issues
- Payment modalities



Selected References:

- Denmark - Fredericia Wastewater Treatment Plant
- Russia - Kaliningrad Waste Water I (Feasibility)
- Romania - Constanta Wastewater Treatment Plant
- United Kingdom - Wastewater Asset Management Framework Contract
- Vietnam - Buon Ma Thuôt Wastewater Treatment Plant
- Nicaragua - Environmental Sanitation Programme
- South Africa - Rural Water Supply and Sanitation

For further information please visit our website or contact:

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