

# Drinking water and wastewater treatment



*The distribution of drinking water and treatment of domestic and industrial wastewater for local authorities and industry represent two determining development in terms of economics, public health, and conservation of resources and the natural environment.*



The incorporation of the water cycle and an extended understanding of technologies linked to its supply, transport and treatment prior to use or discharge into the natural environment allows the GINGER Group to provide an optimised global response to all problems in these fields, from preliminary studies, master plans and project engineering through to monitoring the execution of works while respecting constantly changing regulations.



## KNOW-HOW

GINGER Environnement & Infrastructures has acquired over 20 years experience covering all phases of water treatment and drinking water distribution projects:

- Extensive experience in metrology, network mapping and land surveys,
- Master plans and Geographic Information System diagnostics,
- Modelling of wastewater, rainwater and drinking water networks,

- Integrated analysis of problems associated with water treatment and drinking water, incorporation of environmental, technical and financial constraints,
- Complete project engineering for supply projects, networks and water treatment and production stations.

## OUR MISSIONS

### • Domestic wastewater treatment

- Master plans and diagnosis of treatment systems,
- Regional master plans, assisted by the SIDEAU information systems tool,
- Operational assessments of wastewater treatment stations for the introduction of new installations or calculation of charges,
- Geo-purification capability of soils, collective or non-collective zoning, public enquiries,
- Non-collective treatment: design and operational supervision - initial auditing and project management for new and renovated works, introduction of a public non-collective treatment service (SPANC),
- Preparation of technical or teaching methodology handbooks,
- Engineering consultancy for local authorities: complete project management of networks, lifting water stations and water treatment stations.

### • Industrial wastewater treatment

- Analysis and assessment of discharged pollution; analysis of the receiving environment and definition of the amount of discharge,
- Selection of the treatment method,
- Design and project management of treatment systems.

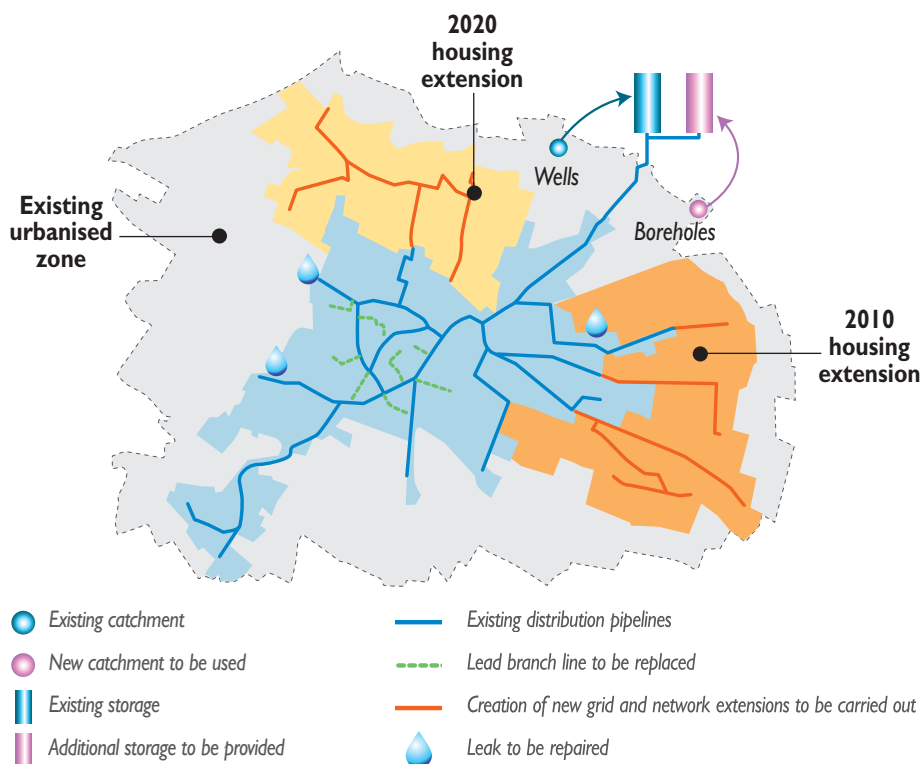


### • Road runoff water treatment

- Study of chronic and accidental pollution, analysis of impact on local milieu and its remediation,
- Development or renovation of existing systems (sizing of the works, hydraulic and environmental impacts, yield, etc).

## • Drinking water

- Site master plans and diagnostics using Geographical Information Systems,
- Protection of resources (evaluation and assessment of existing state, assistance in the implementation of new regulations),
- Water quality assessment reports, and selection of the treatment method,
- Management contract control, organisational and operational advice for treatment stations,
- Complete project management for networks, reservoirs, pumping stations and water treatment stations.



## REFERENCES

### Treatment

**Master plans and diagnosis:** 1,000 municipalities of 100 to 300,000 inhabitants, in France and abroad, including Montpellier, Castelnaudary, Meudon La Forêt, Blagnac, Argeles-sur-Mer, Anse Bertrand, Montbrison, Mende, Miramas, Bollène, Propriano, Tignes, Pau, Villefranche-sur-Saône, Avignon, Colmar, Pont-Saint-Esprit, La Grande Motte, etc.

**Regional master plans** based on the SIDEAU information system (see separate sheet concerning Information and Decision Support Systems): Eastern Pyrenees, Hérault, Aveyron, Gard, Ardèche, Haute-Savoie, etc.

**Methodology documents:** SDAGE (Schémas Directeurs d'Aménagement et de Gestion des Eaux, in France) technical report: treatment for rural municipalities, strategies and case studies: Agence de l'Eau RMC, stormwater pollution protection tanks. Analysis of 30 works carried out in France, reports and recommendations: Comité Inter-Agences de l'Eau.

**Project management:** wastewater treatment stations in Miramas-St Chamas (33,000 PE), Saint-Georges de Luzençon (27,000 PE), Mazamet (20,000 PE), Cahors (35,000 PE), Ceillac (3,500 PE), Condom (20,000 PE), Lunel (33,000 PE), Pourcieux (1,200 PE), outline proposals and competition entry for the station in Oran (Algeria): 1,200,000 PE  
Royal Canin factory in Aimargues, Fabre laboratory in Avène les Bains, and the Ricard company in Bessan.

**Road runoff water treatment:** long term study using heavy instrumentation for AFSA, Scetauroute, ASF (seepage pond in Poussan, sub-horizontal grass-covered drain in Vergèze, etc.)

### Drinking water

**Master plans and diagnosis:** over 100 municipalities of 1,000 to 300,000 inhabitants, including Argeles-sur-mer, SIVOM Durance Alpilles, SIEP Grasse, Cannes, Antibes, Serre-Chevalier, Dammam and Al Khobar (Saudi Arabia), Syndicat des Aravis (La Clusaz, Le Grand Bornand, etc.).

**Regional master plans** based on the SIDEAU information system: Gard, Dordogne, Haute-Savoie, etc.

**Project management:** 4 000 m<sup>3</sup> reservoir in Le Port (island of La Réunion), drinking water supply network for the CLESUD multimodal platform (220 ha) in Grans-Miramas, reinforcement of the drinking water supply network in Lunel, including drilling; chlorination, supply, pumping, etc.

