

Stormwater Solutions

Arup's water engineering capabilities cover the entire water cycle in temperate, arid and tropical environments. Arup has a proven track record in all aspects of stormwater management and drainage, from masterplanning to detailed design. Below are some of services/areas we cover:

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NATURAL FLOOD MANAGEMENT

Utilising natural solutions to hold back flood waters in the upper catchment. Arup is a leader in this rapidly developing area. We have expertise in planning, modelling, engineering and quantification of NFM techniques.

NEW DRAINAGE NETWORK DESIGN

Detailed drainage design of foul and surface water networks is an integral component of site, city and overall water management design. Our innovative designs provide compliant drainage solutions that are more sustainable, resilient, or cost-effective. We use all available drainage techniques for all scales and complexities.

SUDS & DRAINAGE RETROFITTING

Sustainable drainage can play a valuable part in enhancing life in existing cities and retrofitting these requires skill. Arup is a leader in its implementation. We design contemporary, integrated and sustainable drainage solutions for a range of development types, utilising the latest software to model and visualise 3D SuDS structures in real time.

SMART DRAINAGE SYSTEMS

The use of intelligent controls and automation to optimise sewer system capacity. The team has expertise in identifying how this technology can be applied cost effectively.

ASSESSING & MANAGING FLOOD RISK

Whether it is advising on the strategic aspects of flood risk, assessing the appropriateness of new development in flood risk areas or designing existing measures to protect existing communities, Arup has the breadth of skills and experience required.

FLOOD MITIGATION MODELLING & DESIGN

Understanding the legal and practical implications of building within the functional flood plain and providing guidance and evidence to enable regulatory approval for mitigation measures.

CLIMATE CHANGE & RESILIENCE

Global thought leadership on climate change and its implication on water management. Understanding risks over the full life cycle of a project to enable more resilient solutions to be developed.

EXPERT ADVICE & TRAINING

Providing guidance, expert advice and training in all aspects of water management. Our services include expert witness representation in court and planning enquiries. We produce guidance documents and training courses for government and private clients.

DRAINAGE MASTERPLANNING

The best drainage strategies take a holistic approach to make space for water and use it as a valuable resource instead of treating it as a waste product. Our experienced team deliver masterplanning studies from global city scales to individual developments to help drive regeneration and sustainable development.

INTEGRATED CATCHMENT MODELLING

Our modelling expertise sheds light on the true interaction between all drainage systems in the flood plain. We create detailed city scale models of major and minor drainage systems using the latest advances in hydraulic modelling and computing technology. This leads to a higher degree of confidence than traditional models, enabling better targeting of investment.

URBAN DRAINAGE MODELLING

We have extensive experience in complex sewer modelling for water authorities and private clients. This allows us to understand and optimise existing systems, and develop intelligent solutions. Arup is experienced in all urban drainage software packages.