Climate resilience and your built environment

Understanding vulnerabilities and developing appropriate risk mitigation and resilience measures demands a rare set of expertise. You’ll find them here.

We are an infrastructure, international development and management consultancy focused on guiding you through society’s biggest challenges, including the growing severity of climate related impacts. We address the need for urgent action to slow and stabilise global temperature change and adapt to the already unavoidable impacts. We identify and mainstream the benefits and opportunities that investment in climate resilience will bring.

Our internationally recognised experts will help you assess your assets’ exposure to, and the consequences of, climate change impacts, delivering a framework of risk-based solutions.

We can align the right combination of climate-based expertise and infrastructure development experience to unlock new, strategic opportunities and build cost effective resilience for your organisation.
Embedding resilience where it’s needed most

Increasingly severe and frequent extreme climate-related events are resulting in long-term harm to productivity, disruption to service provision and physical losses measured in hundreds of billions of dollars.

Investing in climate resilience supported by our approach to prioritised risk management will enable your organisation to minimise their loss and damage through proactive planning, and rebound swiftly following extreme climate events – supporting you to achieve a business dividend.

We integrate climate resilience thinking into all areas of our business. Our project examples show how our expertise bridges multiple sectors, contributing to the development of a resilient society. Mixing engineering, planning, design, and project finance experience with leading climate resilience expertise, we understand how co-operative intervention concepts can be turned into efficient, cost-effective and appropriate solutions.

Investment and insurance sector services
This is an extension of our resilient infrastructure services to address specific investment and insurance concerns around climate change, such as finance risk, underwriting and stranded assets. Our financial sector services target opportunities associated with mobilising private sector climate funding, facilitating innovative co-funding arrangements with development finance institutions, insurance, and enabling PPPs.

Opportunity
The City of Toronto suffered from fluctuating electrical failures due to varying weather trends as a result of climate change. A plan was required to address potential failures at critical facilities.

Solution
A risk assessment to understand the utility, climate change, maintenance and operational risks associated with electrical power systems.

Outcome
Three tailored investment options to improve the resilience of backup power systems.

Resilient power

Opportunity
Strategic review of the water resources of England and Wales over the next 50 years.

Solution
Application of nationally consistent assumptions to the supply and demand forecasts of 110 Water Resource Zones, creating 12 scenarios across population growth, abstraction licence reform and climate change across three levels of service.

Outcome
Widespread stakeholder engagement across UK water companies. Identification of new, cost-effective, strategic transfers of water and new storage options.

Securing national water resources
### Long-term planning

**Project**
Water Resources East

**Location**
England

**Client**
Anglian Water

**Expertise**
Vulnerability assessment, scenario planning, robust decision making

**Opportunity**
Delivering a reliable, sustainable and affordable system of water supply to meet multisector requirements across the East of England for the next 100 years.

**Solution**
A customised framework, based upon Robust Decision Making, which included vulnerability assessment for the existing system and stress testing of options to the range of future scenarios, and a preferred portfolio of sequenced interventions.

**Outcome**
A framework for collaboration and shared decision making by all key stakeholders across England. A water resource strategy designed to meet threats from population growth and climate change, and provide reliable, affordable supplies of water from sustainable sources resilient to the effects of severe drought.

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### Integrated infrastructure

**Project**
Second National Climate Change Study Phase 2-Energy And Telecommunications Infrastructure

**Location**
Singapore

**Client**
National Environment Agency

**Expertise**
Data analysis, stakeholder engagement

**Opportunity**
As a low-lying city-state with limited natural resources, Singapore’s infrastructure assets are vulnerable to the consequences of climate change.

**Solution**
Through detailed analysis of sites and stakeholder engagement, Climate Change Adaptation Pathways were developed to address key risks in complex, interdependent systems.

**Outcome**
Improved resilience and increased awareness within key government agencies and asset owners.

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Opening opportunities with connected thinking.

For more information, search 'Resilience, Mott MacDonald' or contact climate.resilience@mottmac.com

mottmac.com