

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.



We can help you with

- National policy and adaptation planning
- Service and asset system interdependencies, and system vulnerability to climate impacts
- Climate projections
- Climate change risk assessments
- Resilience guideline development
- Climate adaptation plans
- Investment and capital expenditure planning
- Urban and spatial planning
- Smart infrastructure solutions
- Economic and cost analysis
- Stakeholder engagement, capacity building and training
- Readiness activities
- Design review, implementation and monitoring

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.

Our key areas of focus:

Climate change policy
We can offer technical advisory services to help you understand, translate and formulate policies in order to deliver the appropriate climate change mitigation and resilience measures.

Resilient infrastructure

We can provide you with a suite of tailored recommendations to address the impacts of climate change across various asset and service systems.

Resilient cities

Connecting with our urban specialists across all sectors, we can provide a complete resilience service, capacity building, and aid in the development of adaptation planning.

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.

Resilient power

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.

Project

Emergency Back Up Power

Location

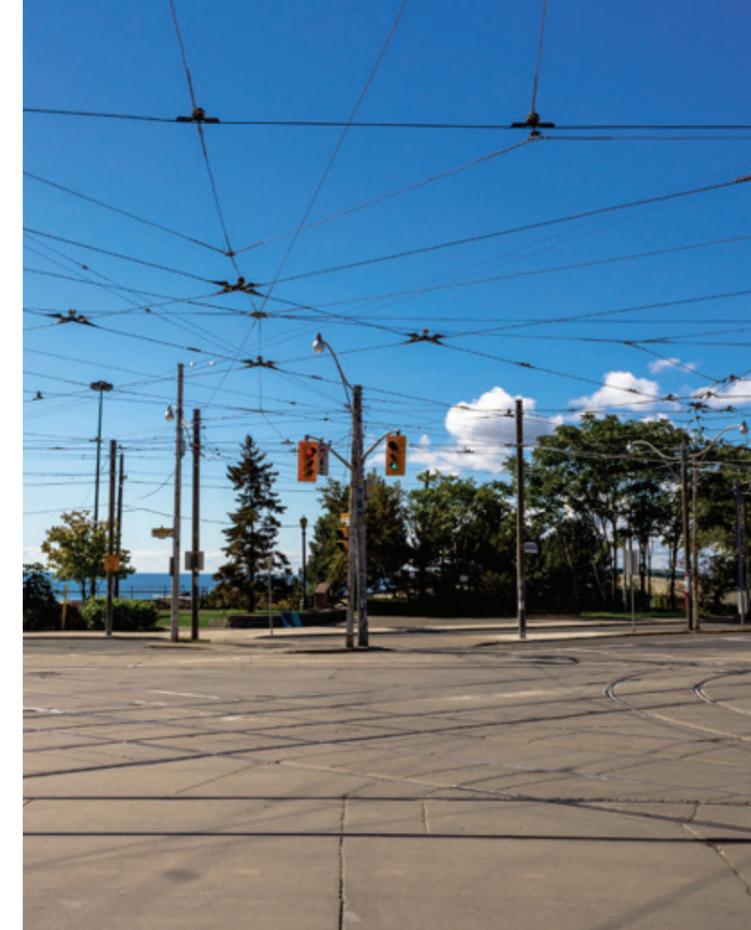
Toronto

Client

City of Toronto

Expertise

Risk assessment, tailored investment strategy



Securing national water resources

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.

Project

National Water Resources Long-term Planning Framework

Location

England and Wales, UK

Client

Water UK

Expertise

Stakeholder engagement, water storage solutions, resilience planning



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.



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.

Opening opportunities with connected thinking.

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

mottmac.com