

FLOOD MANAGEMENT ECONOMICS

Why Aither

Background

Services

Experience

Why Aither

Aither is leading the way in the application of economic principles to improve decision making at the flood policy and planning interface.



Pioneering rapid appraisal techniques.

The Aither team pioneered the application of rapid appraisal techniques to assess tangible and intangible flood damages.



We incorporate human behaviours into flooding assessments.

Aither is at the forefront of international practices – including through incorporating human behaviours into assessing the benefits of flood warning systems and other non-structural methods of flood mitigation.



A proven and demonstrated approach.

Our proven approach improves decision making at all levels of government, while simultaneously improving accountability.



We recognise the importance of making the right decisions.

In an environment of limited financial resources, an uncertain climate, and changing responsibilities, Aither's approach to flood management economics provides clients with confidence that the decisions taken are the right ones.



Our decision making methodology is robust.

Aither's decision making methodology is transparent, quantitative, consistent and defensible to the community, industry and government.

Background

Flood management and mitigation has been attracting increased attention in recent years. Numerous reports and high-profile reviews have each in part highlighted the need for reform in the floodplain management sector. This is increasingly important due to the challenge of managing future climate related impacts.

To mitigate and minimise flood impacts there is a need to understand the risks, the owners of those risks, and the ability and capacity of individuals to manage them. There is also a need to clearly understand the various roles and responsibilities of the public and private sectors in managing risk – including the impact of whole of water cycle management.

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- Undertaking benefit-cost analysis of flood mitigation options
- Assessing structural interventions, such as levees, stormwater infrastructure and retarding basins
- Assessing non-structural interventions, such as land-use planning, warning systems and education
- Advising on and developing investment prioritisation tools
- Advising on and developing emergency management policy
- Developing cost-sharing principles between public and private sectors

Selected project experience

Guidance for local flood risk assessment and cost-benefit analysis (Victorian Department of Environment and Primary Industries): Aither developed guidance for localised flood risk assessments and evaluated flood mitigation options using cost-benefit analysis. The guidance will be used as part of flood management plans.

Economic assessment of flood warning systems and intangible flood damages (Victorian Department of Sustainability and Environment): Aither reviewed the latest economic literature to demonstrate methods for assessing the benefits of flood warning systems and assessing intangible flood damages.

State-wide flood risk assessment (Victorian Department of Environment and Primary Industries): Aither developed a framework for assessing state-wide flood risk using different metrics for flood impacts. The framework has been piloted within two Victorian Catchment Management Authorities prior to its state-wide roll out.

Economic assessment of flood mitigation (Victorian Department of Sustainability and Environment): Aither completed an ex post economic analysis of flood mitigation in Nathalia. The study showed that avoided damages from only one flood in 2012 were sufficient to pay-back the 2007 project cost.

Seymour flood mitigation cost-benefit analysis (Mitchell Shire Council): Aither was engaged to review and update estimates of benefits for the Seymour Flood Mitigation Project. Flood damages were updated by changing ANUFLOOD depth damage curves to more accurate damage curves. Benefits associated with future development of the protected floodplain were also included in the cost benefit analysis.