

# **Barriers to Effective Climate Change Adaptation**

## **Productivity Commission Draft Report**

**Submission from South East Queensland Catchments Ltd.**

### **Introduction and background to SEQ Catchments Ltd. (SEQC)**

- SEQC is the natural resource management body for the South East Queensland region under the Australian Government's Caring for Our Country Program.
- SEQC is a community-based not for profit business with a single vision: a sustainable future with our community, through the management of our environmental assets.
- We take a lead role in the strategic direction of natural resource management (NRM) planning, we develop partnerships, secure funding and deliver outcomes that help maintain and restore South East Queensland's natural resources for the benefit of future generations.
- We promote and facilitate learning and information sharing by engaging with others from both within and beyond our region and by supporting innovative research into NRM issues.
- SEQC is a member of the SEQ Regional Implementation Group (RIG) and the CEOs Committee for Natural Resource Management both of which include membership from key State Government agencies and water entities, Council of Mayors, Queensland Conservation Council and Traditional Owners.
- These Committees are responsible for implementing the SEQ Natural Resource Management Plan (SEQ NRM Plan) and report to the Regional Planning Committee (RPC).
- The RPC is chaired by the Minister for Planning who has identified the SEQ NRM Plan as a priority regional project under the statutory SEQ Regional Plan (SEQRP).
- The SEQ NRM Plan establishes a collaborative framework to link regional natural resource management planning, investment and activities, to achieve a range of targets. The Plan is the pre-eminent, non-statutory environment and natural resource management plan for the region. It articulates measurable targets for the condition and extent of environment and natural resources aligned to Desired Regional Outcomes (DROs) and policies in the SEQRP.
- The SEQRP establishes the implementation of the SEQ NRM Plan as a key means of achieving Policy 4.1.1 under section 4.1 Natural Resource Management. The SEQ NRM Plan is also recognised in a number of other DROs in the SEQRP.

- Local Governments and State Government Agencies are required to show how they have addressed the SEQ NRM Plan in schemes, strategies and policies.
- The targets are mapped in the SEQ NRM Plan Benchmark Atlas and the Implementation Atlas.
- SEQ Catchments have coordinated the development and implementation of the SEQ Ecosystem Services Framework in partnership with State Government.
- The SEQ Ecosystem Services Framework is an implementation tool to address Policy 4.3.3 in the SEQRP.
- Local Governments and State Government Agencies are required to show how they have addressed the SEQ ES Framework in schemes, strategies and policies.

### **The SEQ NRM Plan provides a framework and governance structure to addresses barriers to climate change adaptation**

The targets in the SEQ NRM Plan have been agreed to by the region as a framework to enhance the resilience of the community and the natural assets it relies on for its wellbeing and prosperity. Achieving the targets will mitigate the impacts of climate change and allow adaptation to occur. The NRM Plan contributes to the National Wildlife Corridors Plan by promoting the management of strategic regional landscape connections that enable adaptation to occur.

The governance structure to coordinate action to achieve the targets allows for the monitoring of policy and investment in the region to ensure the necessary support for on ground action to proceed (Attachment A).

### **Putting a cost on the damage to our natural assets from climate change etc.**

To help inform future policy and investment into the SEQ NRM Plan, SEQC commissioned Marsden Jacob Associates to undertake research which is the basis of the report '*Managing what matters: the cost of environment decline in SEQ*' (Attachment B). The purpose of the research was to analyse the targets established in the SEQ NRM Plan, and then identify, scope and assess the potential economic cost of environmental degradation if the targets are not achieved. It looked at the two broad sets of economic costs attributable to any decline in resource condition in SEQ:

1. The impacts relating to the social values (biodiversity, recreation, coastal condition etc).
2. The financial impacts on business, governments and households.

This research proves that there is a clear economic benefit to the SEQ community and economy of meeting the targets in the SEQ NRM Plan. Ultimately the economic benefit of meeting the SEQ NRM Plan Targets is the difference between the 'do nothing more' scenario and the investment required in achieving the targets. These benefits include the avoided cost of further degradation and the enhancement of the current condition for some assets.

From a public policy perspective, if the market has failed to deliver socially optimal natural resource management outcomes and the benefits of meeting the targets exceed the costs, there is an economic case for intervention by governments on behalf of the community.

The research identifies that there is potential to achieve \$7.1 billion of social benefits to the community through the implementation of the targets in the SEQ NRM Plan.

The economic cost to industry will also be significant. A 'do nothing more' scenario will put at risk up to \$8 billion in potential turnover for the tourism industry in South East Queensland over the next 20 years. Our \$1.2 billion primary production industry will continue to suffer productivity and profitability risk from declining resource condition. The cost to governments at all levels is likely to continue to increase in direct expenditure areas such as water treatment, and indirect expenditure (e.g. as air quality declines impacting on population health).

### **Climate Proofing Bribie - A Climate Adaptation Action Plan May 2010**

Climate Proofing Bribie offers the chance for the community and its government to view Bribie Island in a new light that turns threats into opportunities. Historically the social, economic and environmental issues have often been considered in isolation. Adapting to climate change demands an integrated and positive approach by a well-informed and cohesive community.

Over the course of a year and a half, the community of Bribie Island and its three tiers of government have been involved in a process to develop a collective adaptation action plan facilitated by SEQ Catchments and the University of the Sunshine Coast. Seven priority actions each for community and council have been identified. Regardless of the cause of climate change, implementing this action plan will cause no regrets and deliver long-lasting benefits to the Bribie Island community and its environment.

The Climate Proofing Bribie process represents a bottom-up approach to climate change adaptation, and offers the Moreton Bay Regional Council an opportunity to lead Australia in this innovation (Attachment C).

### **The use of Ecosystem Services to address barriers to climate change adaptation**

With reference to the following passage from the draft report that describes the barriers to climate change adaptation in terms of accurately valuing the services provided by natural assets:

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*Better understanding of environmental conditions and changes can help decision makers to weigh up these impacts and implement policy responses that reflect the values the community attaches to ecosystems and environmental services (PC 1999a). An important part of this is information on how the community values the environment — including economic, natural, amenity and leisure values. These can be difficult to quantify as many environmental features and services (such as clean air and biodiversity) are not traded on markets. However, there are techniques available to estimate these values, such as stated and revealed preference methods (Land and Water Australia 2005). It may also be possible to collect qualitative information on the value that people place on environmental services and resources, and use this information as an input to decision making.*

*Several submissions expressed concern that some environmental services are not being appropriately valued at present. For example, the Director of National Parks (sub. 60, p. 9) contended that:*

*Failure to properly value ecosystem services can distort conservation investment, with a tendency to focus on ‘symptoms’ rather than ‘causes’ of biodiversity decline being an obvious result. Improved valuation of ecosystem services (including their capacity to ameliorate the socio-economic impacts of climate change) and better understanding of the vulnerability of ecosystem services to climate change would encourage more informed and better targeted decision-making ...*

*Similarly, the Department of Sustainability, Environment, Water, Population and Communities (sub. 77, p. 13) noted that:*

*Policy interventions to facilitate adaptation could be enhanced by improved recognition and inclusion of the value of ecosystem services ... and further understanding of the vulnerability of ecosystem services to climate change.*

SEQ Catchments have coordinated the development and implementation of the SEQ Ecosystem Services Framework in partnership with Government, research bodies, industry, Traditional Owners, environment sector and the community.<sup>1</sup>

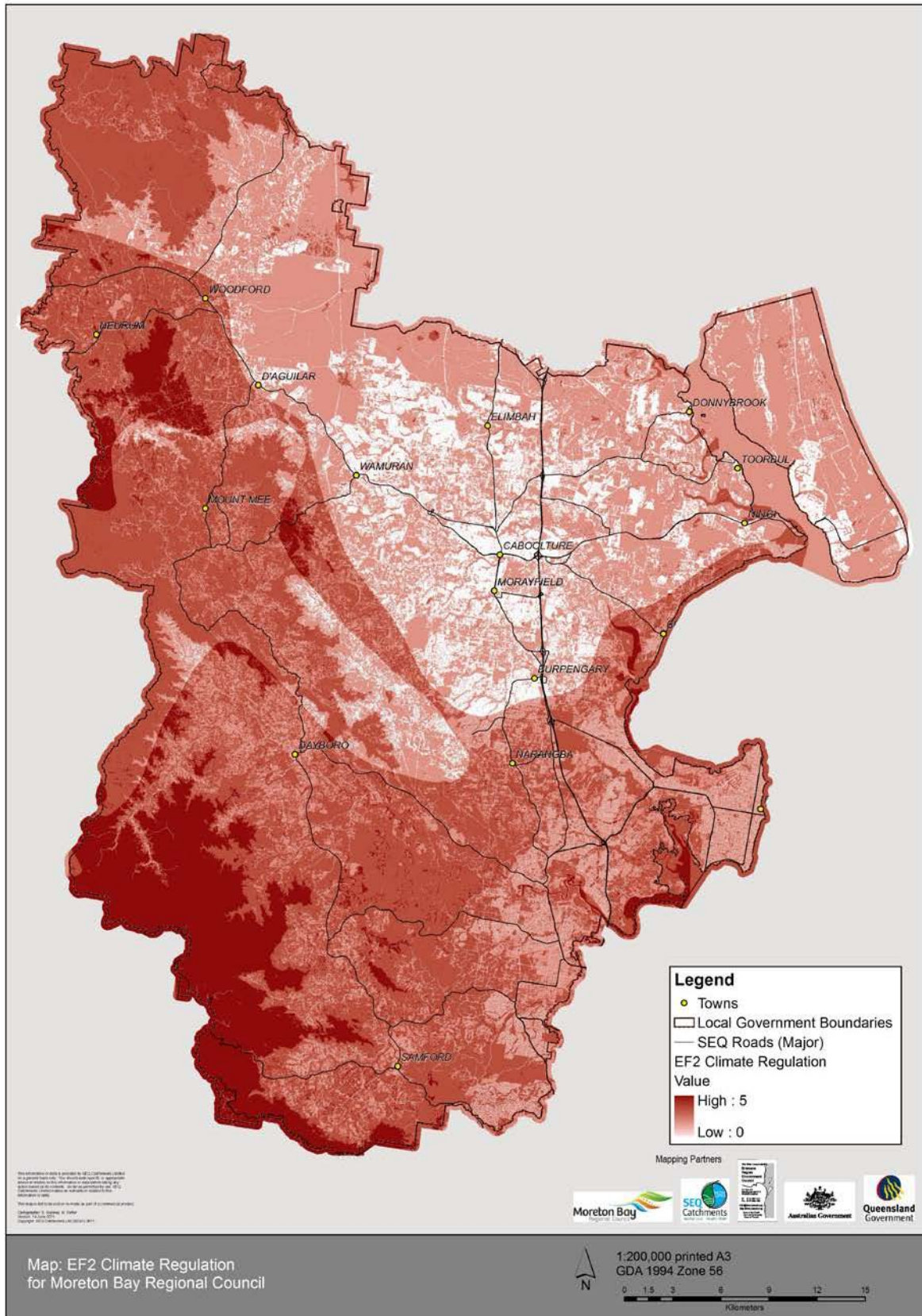
The SEQ Ecosystem Services Framework is an implementation tool to address Policy 4.3.3 in the statutory SEQ Regional Plan. In theory this requires Local Governments and State Government Agencies to show how they have addressed the SEQ ES Framework in schemes, strategies and policies.

The Moreton Bay Regional Council commissioned SEQC to conduct an assessment of the Council area to identify the priority areas that supply ecosystem services to their community. A report is available that explains the methodology and displays a series of maps identifying priority areas of the landscape for service provision. The two maps included in this submission identify priority areas for climate regulation and disturbance regulation which have been identified as strategic areas for climate adaptation.

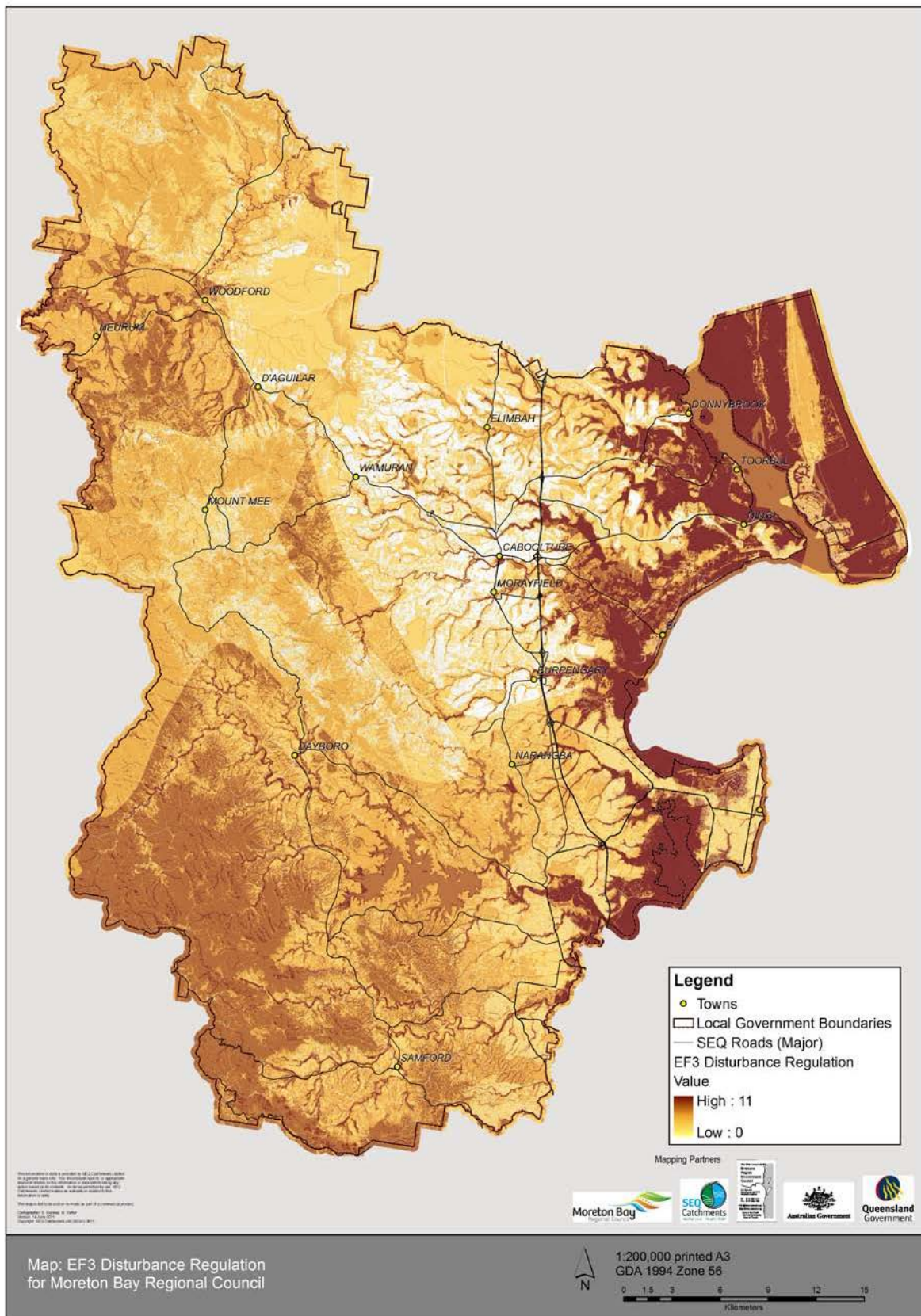
The Principal Engineer for Drainage, Waterways and Coastal Planning at Moreton Bay Council now employs the Framework and mapping to identify strategic areas for revegetation in relation to planning for flooding, stormwater management and Water Sensitive Urban Design. The policy outcome here is that the function of disturbance regulation is integrated into council planning and operations to reduce impacts of flooding on life, property and the environment.

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<sup>1</sup> Maynard, S, James, D and Davidson, A (2010), *The Development of an Ecosystem Services Framework for South East Queensland* Environmental Management: Volume 45, Issue 5, Page 881.







### **The regional body approach to NRM and climate adaptation**

The Australian Government's investment in the NRM Regional Body network covering Australia has leveraged large amounts of community and industry co investment and effort to progress the management and enhancement of our natural assets. This network is again in the box seat to assist with identifying and addressing many of the barriers to climate change adaption and has been doing so for over a decade. The network's unique links between government, industry and the community provides a cost effective mechanism to discuss and coordinate action on this complex issue.