
Urban Nutrients and Pollution Reduction Strategy Briefing Paper

“To restore ecological function of our urban waterways by impact reduction”

BACKGROUND

Brisbane waterways play a key role in providing community benefits that include recreation and tourism activities, commercial and recreational fishing, positive health and well-being and increased liveability. Our waterways are also important ecologically by providing habitat and corridors. The rapid population growth predicted for south east Queensland will result in increasing pressure on Brisbane’s urban waterways, the Brisbane River Corridor and Moreton Bay. All the member groups of BCN are involved in the ecological restoration of Brisbane’s catchments because of their importance to Brisbane’s natural system and human population. This is reflected in our Vision Statement above.

Strategic, catchment based, collaborative projects that aim to have all stakeholders working together to reduce the nutrient and pollution loading coming from Brisbane’s urban waterways will have positive impacts on the overall health and resilience of Moreton Bay. Nutrient and sediment levels are beyond acceptable levels in our local creeks and action is needed to reduce those levels. Obviously, this in turn can help reduce dry weather impacts on Moreton Bay. The projects will also contribute to the health of urban waterways themselves, including the Brisbane River and the eleven main creeks that drain into the Bay, improving the environmental, social and economic benefits these creeks provide to the wider Brisbane community.

CURRENT SITUATION

Pollution, nutrient and sediment runoff is the main pressures impacting our urban waterways and ultimately Moreton Bay and is a risk to achieve the Water Quality Objectives of the Department of Environment and Heritage Protection (DEHP). At present, whilst substantial research and effort has been undertaken to reduce sediment pollution into Moreton Bay, very little collaborative resourcing has been aimed at nutrient and pollution reduction from urban areas. Brisbane Catchments Network (BCN) aims to build on previously undertaken academic research and Queensland Water Quality Objectives established by the DEHP to produce research projects, practical projects and interpretive material that can both identify, minimise and prevent pollution and nutrients entering the internationally significant Ramsar listed Moreton Bay wetland. BCN, in conjunction with its key stakeholders and partners, is aiming to collate and identify gaps in the scientific research that can lead to well-developed and cost effective projects that improve the water quality and resilience of Moreton Bay.

The Urban Nutrient and Pollution Reduction Workshop is a citizen science initiative to help BCN understand the science and methods needed to understand, prioritise and reduce the impacts of those pollutants in Brisbane’s waterways through collaborative government and community action.

ACTION REQUIRED

1) Governance

Development of a “Focus Group” to drive and guide this Project (representing the different sectors)
Development of “Community of Practice” training program for Brisbane City Council (BCC) staff, contractors and procurement team.

2) Nutrient Abatement

Seeking collaborative partnerships (Community, Institutions, Government, Utilities/Industry) – working together.

Problems:

- A large range of targets
- Lack of baseline information
- Identify hot spots required
- Identifying the issue
- Provide the best "Bang for Buck" solution
- Funding – Council lands – upgrade; Private/Industrial –industries must contribute (engage)
- Ineffective guidelines for development
- Offsets – Developers are being allowed to use last resort – first!
- Nutrients: Population growth wiping out gains – pricing
- Council technical approaches – making water move faster – drains versus waterways
- Floodplains diminishing due to poor development planning and control
- Illegal polluting of waterways – multiple sources identified.

Solutions:

- Need more monitoring at local level – citizen science
- Outcomes from environmental projects – impact investment
- Less hard, more green infrastructure solutions
- Agreed best practice knowledge base
- Bridge gap between science and local Project
- Update values and objectives so targets can be set
- Offsets – ongoing maintenance in contract; green bonds – developer pays upfront for required maintenance over many years
- Catchment based modelling – pollution hot spots identified, monitoring
- Publicise case studies
- Small catchments
- On-site solutions
- Revitalise Catchment Plans
- Enforcing existing regulations – BCC and State Government (compliance)
- Themes:
 - Organising knowledge and sharing it
 - Improving practice
 - Setting targets
 - Investment! Collaborative programs and market base opportunities.

3) Update Management Plans

Current Catchment Management Plans and Waterways Management Plans were developed in the 1990s and 2000s by local government – with community participation. These plans need to be updated to address:

- Nutrients and Pollution reduction
- New initiatives such as carbon sinks
- Riparian restoration (latest methods and innovation) for both hydrological and environmental outcomes (including required laboratory testing)
- Upgraded Water Quality Assessment
- Water sensitive urban design
- Extended into the tidal Brisbane River/Moreton Bay area
- Citizen Science to be incorporated into Plans.

4) Development of Enhanced Community Monitoring Program/Network

Require baseline data of lower Brisbane creeks water quality.

Pilot Enhanced Water Quality Testing of the following parameters for Bulimba Creek and one other catchment:

- Nutrients (nitrogen and phosphorus)
- Heavy Metals
- Total Suspended Solids
- Turbidity
- Hydrocarbons
- Pesticides
- Biological indicators.

5) Development of Pilot Projects within the Brisbane Catchments Network and Brisbane River Corridor

Development of pilot projects within the lower Brisbane Catchments which may include, but not limited to:

- Riparian restoration
- Erosion control program
- Wetland upgrades
- Saltmarsh and mangrove rehabilitation
- Waterway corridors – protection and rehabilitation; acquisitions.

These pilot projects are to include enhanced water quality testing to determine the environmental outcomes of the restoration pilot projects.

6) Special events

Development of shorter and more focused events targeted towards:

- Local Government Councillors and State and Federal representatives (or their Advisory Staff)
- Water Industry Leaders and advisors
- Key Decision Makers
- Consultants
- Catchment Carers
- The general public.

7) Investment in further BCN Urban Nutrients and Pollution Reduction Workshops

Investment to support the community to continue with two more Urban Nutrients and Pollution Reduction Workshops.