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Brisbane Catchments Network

Reducing Urban Nutrient Pollution in Moreton Bay

Briefing Paper
Griffith University EcoCentre, Thursday 11 February 2016, 9am to 3:30pm

Introduction

BCN has been successful in obtaining the Brisbane Airport Corporation Community Grant to run a workshop on "Reducing urban nutrient pollution in Moreton Bay" aimed at developing an integrated research and management approach to reduce urban nutrient pollution in Moreton Bay.

Workshop Objectives

This workshop aims to:

- Bring together the knowledge and skills across various sectors
- Identify key investment areas – we already have research and data on sediment and nutrient pollution, so this workshop aims to focus on urban pollution sources and refreshing our commitment to the issue
- **Identify gaps** for future academic research and on-ground restoration activities. Measuring effectiveness of current responses to nutrient pollution
- Empower community catchment groups with regional specific targets and objectives
- Enable community catchment groups to undertake on-ground works that contribute towards the health of the region, not just their local catchment
- Encourage cooperation and collaboration between government, industry and the community.

Purpose of the Paper

This briefing paper serves to provide key background information and definitions to help participants arrive at the workshop on a similar page. This is important because the workshop intentionally brings together a diverse group of people from across industry, research institutions, community and government to begin a new dialogue, in the hopes that this can be the starting point to advance the integrated research and management approach to reducing urban nutrient pollution in Moreton Bay.

Key Definitions

Term	Definition
Diffuse (or Non-Point) Pollution Sources	Polluting substances which impact a wide area and cannot be easily tracked back to a single or definite source. Eg. road runoff - oil, grease and toxic chemicals, land runoff - excess fertilisers, herbicides and insecticides, sediment from improperly managed construction sites, agricultural areas and eroding stream banks.
Point Pollution Sources	A point source is a single, identifiable source of pollution, such as a pipe or a drain. Industrial wastes are commonly discharged to rivers and the sea in this way. E.g. Sewer overflow, industry which discharges one or more pollutants in their discharged waters (called effluents).
Legacy Pollutant Loads	A collective term used to describe substances which have been banned or are severely restricted legislatively. Because of their slow rate of decomposition, these substances frequently remain at elevated levels in the environment for many years after their widespread use has ended. Gradual decline in environmental legacy pollutant concentrations occur as a result of natural attenuation processes.

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Residence Times	Also known as removal time, is the average amount of time that a particle spends in a particular system. This measurement varies directly with the amount of substance that is present in the system. The residence time is a representation of how long it takes for the concentration to significantly change in the sediment.
Run-off hectare	The demand for waterway capacity generated by one gross hectare of land calculated using the coefficient of runoff for that area classification.

Where are we now in terms of Nutrient Pollution Reduction?

There are a number of stakeholders researching and monitoring the health of Moreton Bay. Some examples of this action include:

- Healthy Waterways Report Cards – monitors the water quality of 18 estuaries and Moreton Bay as part of a broader program monitoring the health of waterways; Water Sensitive Urban Design
- DEHP Water Quality Guidelines
- DEHP Receiving Environment Monitoring Program (REMP)
- Reef Check Australia South East Queensland Summary Report
- BCN / B4C Brisbane River Corridor Project – rehabilitation of a riparian nature
- Creek Catchment Groups – water quality monitoring, riparian on-ground restoration works
- Australian Rivers Institute – Catchment and river ecosystem processes; rehabilitation science and environmental flows; coastal and estuarine ecosystem processes; aquatic biodiversity and conservation; aquatic ecosystem modelling and assessment; integration, modelling and catchment management.
- QUU – waterway rehabilitation
- Brisbane City Council – Water Quality Monitoring at 11 sites in the Brisbane River and sections of Moreton Bay, Ecosystem Health Monitoring Program, Creek filtration systems, Water Sensitive Urban Design, Natural Channel Design.

Collaborative Actions

This workshop aims for collaboration for impact: