## The school with no stormwater: Noosa Flexi-Learning Centre

Alan Hoban<sup>1</sup>, Chris Tanner<sup>1</sup>, Belinda Gleeson<sup>2</sup>, Mark Kalinowski<sup>2</sup>

1: Bligh Tanner Consulting Engineers

2: Fulton Trotter Architects

## **ABSTRACT**

The Noosa Flexi-Learning Centre aims to create a welcoming and distinctly un-institutional learning environment for disenfranchised and disengaged youth in the Noosa Region. The design response is to create a beach-house style environment which minimises its impact on the site, as well as on the planet's resources.

The young people that will use the centre are approaching life with few privileges. By creating a learning environment that embodies great sustainability features, the design team hopes to provide accelerated opportunities for them to understand and interact with the types of environmental knowledge that will be important for the world they are inheriting. Such learning opportunities can help build their pride, self-confidence and a sense of purpose.

The stormwater management strategy for the 0.56ha site responds to the brief by preserving the natural hydrology across 90% of the site by building lightweight structures on piers and raised walkways, as well as minimizing soil compaction during construction. Just 3% of the total site area is slab-on-ground construction, and ground-level permeability is maintained across the balance of the site.

Roofwater is harvested via a prominent elevated rainwater tank that creates a key architectural feature which symbolizes the responsible use of water. Such elevated header tanks have the potential to produce the most marked energy reduction of all the devices adopted in a rainwater system (Tjandraatmadja et al 2012).

By treading lightly on the landscape and coupling the architectural design with the water strategy, the site is able to meet current best practice stormwater management targets in a resource efficient and cost effective manner. It avoids the need to any additional stormwater quality assets such as bioretention systems or underground pipes.

## Introduction

The Noosa Flexi-Learning Centre aims to create a welcoming and distinctly un-institutional learning environment for disenfranchised and disengaged youth in the Noosa Region. The design aims to create a beach-house style environment which minimises its impact on the site, as well as on the planet's resources. The design consists of a series of small buildings that create a learning environment for about 80 young people and about 10 staff.

The young people that will use the centre are approaching life with few privileges. By creating a learning environment that embodies great sustainability features, the design team hopes to provide accelerated opportunities for them to understand and interact with the types of environmental