



What Does it Cost to Build a Stormwater Harvesting Scheme? Findings from Council Schemes in Sydney.

Phillip Birtles¹, David Knights²

¹*Sydney Water, Sydney, Australia*, ²*McGregor Coxall, Sydney, Australia*

Harvesting urban stormwater runoff to improve stormwater quality, reduce stormwater runoff, and reduce potable water consumption is a common catchment management objective across councils in Sydney. Many councils in Sydney have implemented harvesting schemes and are also currently in the process of designing and constructing stormwater harvesting systems to improve waterway and receiving water health.

One of the major barriers to the widespread adoption of stormwater harvesting systems is the cost of constructing stormwater harvesting systems. This barrier is exacerbated by the lack of good quality and easily accessible data on construction costs, particularly in Sydney. This paper seeks to address that gap by assessing construction cost data on more than 20 stormwater harvesting schemes throughout Sydney. This paper finds that there are considerable variabilities depending on the local characteristics of the scheme including availability of harvestable baseflow, non-potable demands, local site characteristics, and storage type.

This paper provides a detailed breakdown of construction cost into its key components (pre-treatment, storage, post treatment, reticulation, etc). This breakdown outlines the major cost components of constructing harvesting systems. The breakdown highlights where to focus efforts when attempting to minimise construction and implementation costs particularly during design, with an emphasis on site specific characteristics that can add disproportionately to construction costs (scale, treatment method, in-situ material etc).