

MTW assessment for Water sensitive industrial developments :a case study in Auckland

Yuliang Wang, PhD candidate & Marjorie van Roon, PhD, Senior Lecturer, School of Architecture and Planning, The University of Auckland

Poster presented at the NZAIA Conference, Auckland, 26-27 November 2019

Correspondence: ywan676@aucklanduni.ac.nz

Numerous cities around the world are increasingly applying sustainable stormwater management (SSM) to mitigate urban stormwater problems caused by rapid urban sprawl and climate change. Water Sensitive Design (WSD), as an approach to freshwater management in New Zealand, is applied to land use planning and development at complementary scales and seeks to protect and enhance the natural water cycle. Applying WSD in industrial areas is quite different to that in other land use types and special attention must be paid in industrial areas due to the complex context. So the benefits and advantages of WSD are the key points for combining it into an industrial plan which will involve various elements of environment, economy, public use and policy. More Than Water (MTW) assessment tool (Moores et al. 2019) was used for comparing the benefits and advantages of a hypothetical Green Infrastructure version with those associated with a 'business as usual' (BAU) version of the same project from various aspects. The research aims to identify the advantages and disadvantages of water sensitive industrial development and conventional development from water / non-water aspects. The evaluation sets a baseline for applying a WSD framework in an industrial zone which means WSD implementation has many benefits for industrial development. The results show WSD has obvious superiority and it would be more sustainable and resilient for contemporary industrial development. Further research will use this assessment baseline to explore and identify the application of a water sensitive design framework for industrial areas.