

An investigation of the implications of urban development approaches on wastewater management in Chitungwiza Municipality, Zimbabwe

By

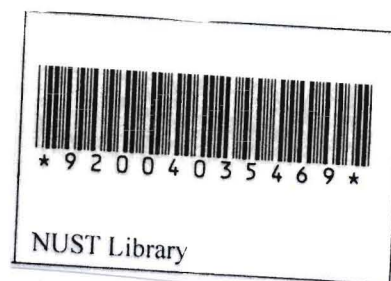
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Dissertation Submitted to the Department of Landscape Architecture and Urban Design (LAUD) in the Faculty of the Built Environment (FOBE) at the National University of Science and Technology (NUST), in Partial Fulfilment of the Requirements for the Degree of Master of Urban Design Programme

September 2013



ABSTRACT

Urban settlements in Zimbabwe, and indeed the entire developing world, continue to expand outwards without proportionate expansion or upgrading of infrastructure such as water and sewerage reticulation, resulting in health, pollution and environmental degradation. Such urban development approaches that disregard environmental and planning laws threaten waterbodies, aquatic and human life. Local authorities are just overwhelmed and the irreversible impacts of wastewater go far beyond the settlements' boundaries. Wastewater management initiatives, in the form of new technologies, without appropriate development approaches, cannot provide sustainable solutions to the challenge. The research focuses on urban planning and infrastructure standards application, development approaches used and wastewater challenges faced in Chitungwiza Municipality with a view to coming up with sustainable urban environmental management solutions. It provides the basis for a search of sustainable urban development approaches to deal with wastewater management challenges. The case of Chitungwiza Municipality is investigated based on its historical, planning, administrative, governance and urban development background. Development control efforts are explored and practices that worsen wastewater generation, thus threatening both the built and natural environments exposed. This culminates in the quest for lasting solutions to wastewater management challenges posed by unrestricted urban growth and expansion. Optimum growth, together with strict development restriction, and emergence of new settlements altogether are touted as some of the options for dealing with the urban challenge. A paradigm shift in urban planning and design is anticipated starting with urban planning/design education, legislative review, standards monitoring and enforcement in view of the 21st Century urban development challenges.