Grey Water Systems and Further Water Management Schemes in the Municipality of Camden

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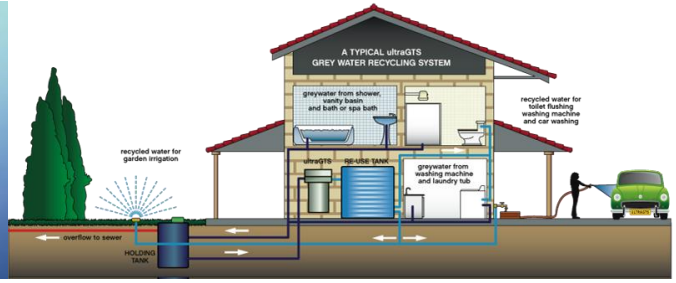
What Challenges were you/your team Addressing?

Due to poor water collection in Camden and imminent droughts, effective conservation and development of a beneficial water scheme is required to ensure a prosperous Camden for our future generations. Camden's water supply (the Cataract Dam) is a stand alone dam, which leads to many problems during drought season and can lead to severe water restrictions needing to be introduced to maintain our shrinking water supply. A solution must be introduced in both public and private sectors to ensure our water supply is stable even during droughts. The increasing population and urbanisation of Camden is also not to be overlooked and a sufficient scheme must also be introduced to support internal migration to Camden. Our team believes we have successfully discovered a solution to this water conservation dilemma that can successfully be implemented on a large scale to the municipality of Camden and other suburbs under Sydney Water's jurisdiction.

Sydney WATER

What Solution did you/your Team come up with?

Our project is the proposal for the further development of water tanks and greywater systems to increase water collection and decrease water waste, improving the effectiveness of water conservation within the Camden area. These concepts will provide an affordable and mass-implementable solution to water management in Camden. This solution applies to pre-existing and upcoming residential and commercial buildings within the Camden area, and due to the large scale of installation potential, this will ensure the effectiveness of the system in the substantial reduction of water waste in Camden. This will provide the urbanised future of Camden with a sustainable water supply, residents with employment opportunities to install, operate, and maintain these systems, and ensures further economic development in the municipality.



How did you/your Team go about coming up with the Solution?

To find the best possible solution for this issue, our team researched and communicated to express several ideas that we believe could solve this problem in the most optimal way possible. We discussed different solutions such as more education programs being implemented in schools to educate children about the importance of water conservation and even discussed the construction of a new dam. As we progressed further with our research, it was decided that the implementation of a water management scheme utilising grey water systems and the further use of water tanks would be the best option for the Camden area. We believe these systems have great potential to protect our water supply for our ever-urbanising municipality and thus it is a necessity that they be introduced.




What are some Benefits of your Work?

Our proposed technology can provide many benefits to the conservation of water and further economic development in the Camden area. Through further installation of greywater systems into homes and different building facilities, water that would usually be wasted will be able to be collected and recycled, leading us to waste less of this valuable commodity. Through further installation of water tank systems, rain collection would be far more effective and provide Camden with a larger water supply. Employment opportunities and jobs will also be created for the purpose of the installation, management and operation of these systems. This solution to water management will also reduce water bills as less water is used, thus making the municipality of Camden more affordable and more appealing for new families.

What did you Learn in the Process?

We learnt about the water management schemes that Camden Council has implemented in the area, and their effectiveness to help conserve water for further urbanisation and economic development of the Camden municipality, such as the implementation of water restrictions. We also learnt new methods to reduce water wastage in Camden such as the increased use of grey water systems, which repurpose wasted water from bathrooms and taps for the use of hydrating non-edible plants and fueling toilet water, and water tank systems, which utilise and collect rainwater for general purposes. These technologies are believed to be effective methods to collect water in Camden and reduce water wastage in the municipality. We also learnt about the ramifications that will arise if new technologies/schemes are not introduced in Camden, which could deprive the area of a sustainable supply of water, thus impacting the municipality's economic and urban development.