

## Investigation of Stormwater Quality on Different Impervious Surfaces: A Case Study at General Sir John Kotelawala Defence University

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Urban areas produce huge stormwater runoff because of the high number of impervious surfaces such as roads, roofs, buildings, parking lots, walkways, or anything else that does not allow water to penetrate to the ground. During heavy rainfall periods, these stormwater runoffs often overflow and discharge the excess onto nearby streams, rivers, lakes, or other water bodies. This study was aimed at investigating the stormwater quality in different impervious surfaces at General Sir John Kotelawala Defence University (KDU). Focusing on the land use patterns at KDU, key pollutant indicators representing urban stormwater quality, and characteristics of pollutants in wash off stormwater from selected impervious surfaces were analysed. This study used roads, roofs, and parking lots as impervious surfaces to collect necessary stormwater samples and from the first flush flow, twelve samples were collected from different locations within KDU premises. The wash-off characteristics of different impervious surfaces were compared and potential mitigatory measures were proposed to safeguard the receiving water quality.

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