Wetlands are being lost and degraded in urban areas. Urban wetlands perform a diverse range of valuable functions. The loss of wetlands, therefore, has a negative impact upon urban human populations. One of the major threats to urban wetlands in Gauteng is the development of residential and commercial developments. As prime land for development is at a premium, the urban developer has targeted wetlands, which are canalised, drained or filled before being developed over.

A typical example is that of the case study used for this thesis, where a wetland found in Johannesburg, Gauteng, is in the process of being destroyed, with the developers removing wetland vegetation, levelling the site and inhibiting the flow of the Wilgespruit River. Eventually a townhouse complex to be known as Wilgeheuwel Extension 29 is to be developed on the site.

An integrated sustainable rehabilitation plan is required to ensure that the Wilgeheuwel Extension 29 wetland is rehabilitated. This plan is to take into consideration all the factors that influence the wetland negatively at present, including impacts upstream and possible future impacts. Therefore, a hierarchical approach is used, where management plans for the Wilgespruit River sub-catchment, the proposed development and the individual wetland are integrated into one plan.