

Jonkershoek – preserving 73 years of catchment monitoring data

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A water catchment monitoring project was started in 1937 in the Jonkershoek Valley outside Stellenbosch, South Africa. Subsequently a number of other small catchment monitoring sites were established in Kwazulu-Natal, Mpumalanga and Limpopo provinces to measure streamflow. The monitoring was established due to concerns that plantations would decrease the amount of water available from mountain catchments for other users. Data from this project has supported the multi-million rand Working for Water job creation project and holds promise for improving our understanding impacts of climate change on the ecohydrology of catchments. Over the years, this project has been managed by a number of government departments and parastatals. In 2009 an agreement was reached whereby the South African Environmental Observation Network (SAEON) manages the Jonkershoek catchment monitoring and takes responsibility for the preservation of the data for this and other previously monitored catchments. The Data Management goal of this project is to create a secure database to house all of the data records; ensure that regular data backups are done; that the database can be easily and quickly queried for information; that accurate and complete metadata are created for the records; that the backlog of paper-based charts are digitized and that these data are accessible to the public. The SAEON Data Portal provides the platform from which these records can be disseminated to the public. The project highlights the importance of preserving and digitizing legacy data. The data records were originally stored on a single computer, with restricted access, a slow data extraction process, Y2K and dated technology complications. These data are now easily accessible and provide researchers and students with hourly streamflow and weather data spanning 73 years. By completing the digitizing and making these data accessible, this project's data is now a valuable resource for researchers, managers and students.