

[Determining groundwater availability and aquifer recharge using GIS in a highly urbanized watershed - ScienceDirect](https://www.sciencedirect.com/science/article/abs/pii/S0895981120306362)

Determining groundwater availability and aquifer recharge using GIS in a highly urbanized watershed

The screenshot shows a web browser window displaying the article page. The browser's address bar shows the URL: <https://www.sciencedirect.com/science/article/abs/pii/S0895981120306362>. The page header identifies the journal as "Journal of South American Earth Sciences", Volume 106, March 2021, 103093. The article title is "Determining groundwater availability and aquifer recharge using GIS in a highly urbanized watershed". The authors listed are Bruno Conicelli, Ricardo Hirata, Paulo Galvão, Mariana Bernardino, Mateus Simonato, Márcio Costa Abreu, Nataly Aranda, and Rafael Terada. The abstract text reads: "Extensive urbanized areas, characterized by waterproofed soils, increase runoff, which reduces the rainwater infiltration into the ground. However, water, sewer, and rainwater distribution systems leak, as there is excess irrigation in green areas, resulting in anthropic recharging in urban aquifers larger than in rural areas with equivalent climates. This scenario occurs in the Upper Tietê Watershed (UTW), an area of 5,868km² that drains the principal rivers of the São Paulo's metropolitan region in Brazil, where groundwater plays a complementary role for domestic, industrial, and agricultural supplies, totalizing extraction rates higher than 11 m³/s. In this paper, a Geographical Information System (GIS) was established to assess regional groundwater availabilities". The browser's taskbar at the bottom shows the Windows logo, a search bar with "Buscar", and various application icons. The system tray on the right indicates a temperature of 24°C, the time 03:57 p.m., and the date 03/04/2023.