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## Integrated Investigations of WGAMG'0 Watershed from Chandrapur District, Maharashtra for Planning of Artificial Recharge Sites

Y.A. Murkute\* and N.G. Oak

*Department of Geology, RTM Nagpur University, Nagpur-440001, India*  
*\*E-mail: yogmurkute@rediffmail.com*

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### Abstract

The present paper deals with the morphometric analyses of WGAMG'0 Watershed, Chimur Taluka, Chandrapur District, Maharashtra. A drainage map of the area has been prepared with the help of satellite imagery and the toposheet. The drainage pattern is mostly dendritic in lower order streams and sub-parallel in higher orders streams. The average bifurcation ratio of watershed is 4.14, which indicates that the area has less structural disturbance. The drainage density value of 0.77/km<sup>2</sup> suggests more infiltration than run-off. The small length of overland flow indicates gentle to moderate sloping area, which is susceptible to erosion, whereas the circulatory ratio of 0.28 reveals slightly elongated to oblong nature of the drainage basin. In the study area, two aspects *viz.* erosion control and artificial recharge have been studied. The geomorphology, lithology, landuse, rainfall and slope enabled to arrest and treat the active zones of sheet erosion and intensive gully erosion. The artificial recharge measures suggested are percolation tanks, check dams, nala bunds, recharge pits, contour trenches, gully plugs, earthen dykes, underground bandhara, dabari structure and roof top rain water harvesting structure.

**Keywords:** WGAMG'0 watershed, morphometry, drainage, Chandrapur district, Maharashtra