Bedrock Elevation and Quaternary Thickness Maps of the Muscatine 7.5' Quadrangle, Muscatine County, Iowa and Rock Island County, Illinois

Introduction

The Muscatine quadrangle, located in southeastern Iowa, is underlain by bedrock of the Precambrian to Middle Ordovician age. The bedrock of the quadrangle includes dolomitic and calcareous limestones, sandstones, conglomerates, and shales. The bedrock surface is mostly concealed by glacial deposits, with the exception of the Mississippi River Bedrock Channel. The bedrock elevation ranges from 7 to 100 m (25-325 ft) and is mostly dependent on glacial erosion.

Metropolitan

The Bedrock Elevation is determined by subtracting the surface digital elevation model (DEM) from the bedrock surface. The bedrock surface is mostly concealed by glacial deposits, with the exception of the Mississippi River Bedrock Channel. The Quaternary Thickness is determined by subtracting the bedrock surface from the surface DEM. The Quaternary Thickness ranges from 4 to 70 m (13-230 ft) and is mostly dependent on the thickness of the glacial deposits.

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Transverse Mercator (UTM) Zone 15N, datum NAD83.

Supporting documents and reports from engineering projects and quarry operators were also used. The bedrock elevation was determined by subtracting the bedrock surface from the surface DEM. The Quaternary Thickness was determined by subtracting the bedrock surface from the surface DEM.