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## THE RUSH CREEK STRUCTURE, GARDEN COUNTY, NEBRASKA

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THE RUSH CREEK STRUCTURE, GARDEN COUNTY, NEBRASKA

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Detailed field mapping of surface outcrops in southern Garden County, Nebraska, has revealed a drop of 200 feet in three miles in the elevation of the contact between the Ogallala and pre-Ogallala (probably Brule) Formations exposed on the east side of Rush Creek. Beds of silt, sand, siltstone, and volcanic ash in the area locally dip to the northwest at angles of up to  $8\frac{1}{2}^{\circ}$ . The contact between the two formations cannot be seen on the west side of Rush Creek but beds in the Ogallala Formation there dip to the north and northeast. The unusually long valley of Rush Creek runs along the axis of a north plunging syncline which probably controls the position of springs in the Ogallala Formation feeding the only large perennial stream on the south side of the North Platte River in the county. Ogallala outcrops at river level along the south bank of the North Platte River just southeast of Lisco, Nebraska, are also related to this local syncline.