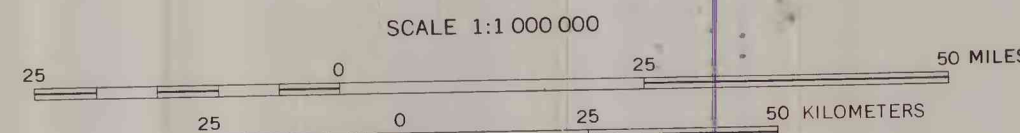


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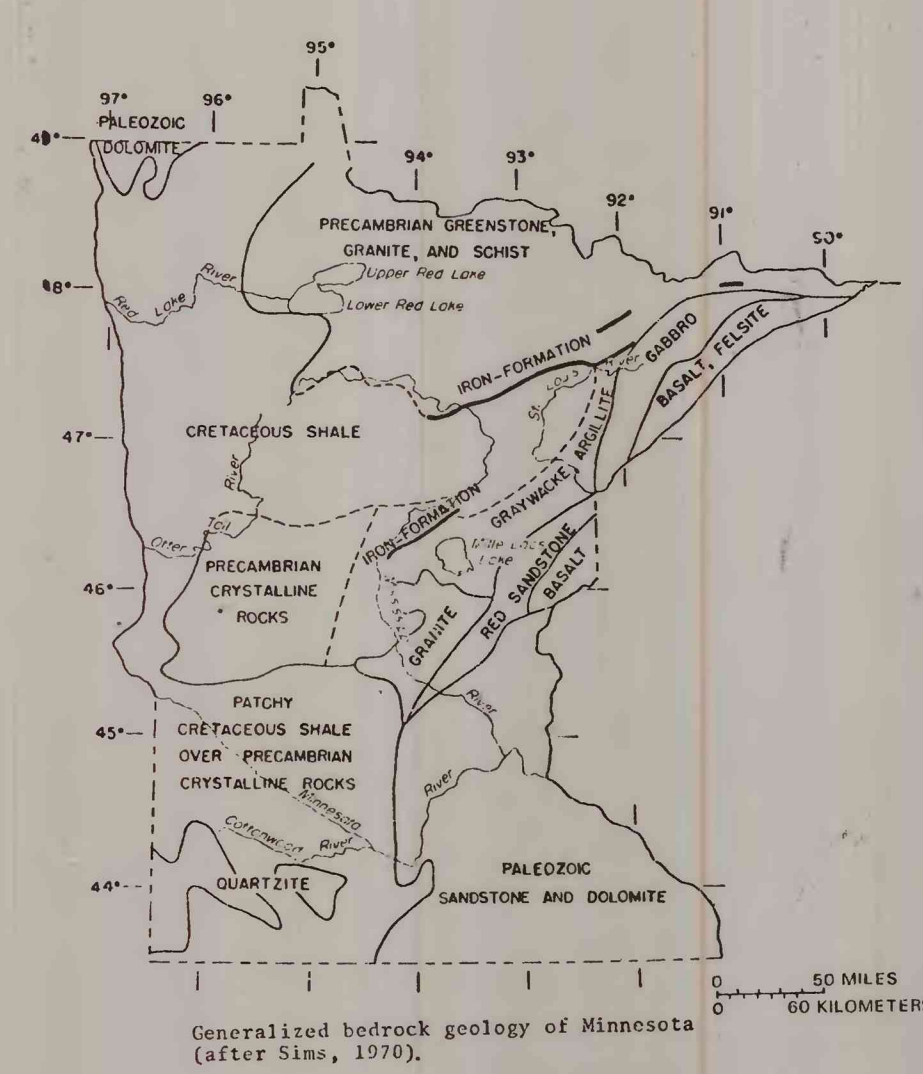
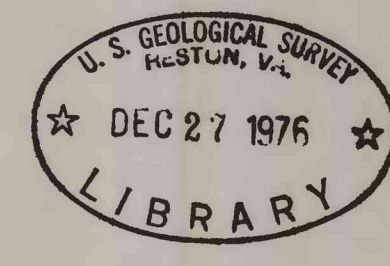
MAP SHOWING ALTITUDE OF THE BEDROCK SURFACE IN MINNESOTA

Compiled by D. C. Larson-Higdem, 1976



EXPLANATION
ALTITUDE OF BEDROCK SURFACE, IN FEET
(METRES) ABOVE MEAN SEA LEVEL

Less than 600 (183)	1200-1400 (366-427)
600-800 (183-244)	1400-1600 (427-488)
800-1000 (244-305)	1600-1800 (488-550)
1000-1200 (305-366)	Greater than 1800 (550)



Base from U.S. Geological Survey
State base map, 1:1,000,000

REFERENCES

Anderson, H. W., Jr., Broussard, W. L., Farrell, D. F., and Felshelm, P. E., 1976, Water resources of the Rock River watershed, southwestern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-555, 3 sheets.

Anderson, H. W., Jr., Broussard, W. L., Farrell, D. F., and Hult, M. F., 1974, Water resources of the Des Moines River watershed, southwestern Minnesota: U.S. Geol. Survey open-file report, 3 sheets.

Anderson, H. W., Jr., Farrell, D. F., and Broussard, W. L., 1974a, Water resources of the Blue Earth River watershed, south-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-523, 3 sheets.

1974b, Water resources of the lower Minnesota River watershed, south-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-526, 3 sheets.

Anderson, H. W., Jr., Farrell, D. F., Broussard, W. L., and Felshelm, P. E., 1974, Water resources of the Cannon River watershed, southeastern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-543, 3 sheets.

Anderson, H. W., Jr., Farrell, D. F., Broussard, W. L., and Hult, M. F., 1975, Water resources of the Zumbro River watershed, southeastern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-545, 3 sheets.

Bidwell, L. E., Winter, T. C., and Macley, R. W., 1970, Water resources of the Red Lake River watershed, northeastern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-346, 4 sheets.

Broussard, W. L., Anderson, H. W., Jr., and Farrell, D. F., 1973, Water resources of the Cottonwood River watershed, southwestern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-466, 3 sheets.

Broussard, W. L., Farrell, D. F., Anderson, H. W., Jr., and Felshelm, P. E., 1975, Water resources of the Root River watershed, southeastern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-548, 3 sheets.

Cotter, R. D., Bidwell, L. E., 1966, Water resources of the Pomme de Terre River watershed, west-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-220, 4 sheets.

1968, Water resources of the Lac Qui Parle River watershed, southwestern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-269, 4 sheets.

Cotter, R. D., Bidwell, L. E., Oakes, E. L., and Hollenstein, G. M., 1966, Water resources of the Big Stone Lake watershed, west-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-213, 4 sheets.

Cotter, R. D., Bidwell, L. E., Van Voast, W. A., and Novitzki, R. P., 1968, Water resources of the Chippewa River watershed, west-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-286, 4 sheets.

Ericson, D. W., Lindholm, G. F., and Helgesen, J. O., 1974, Water resources of the Sun River watershed, east-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-509, 3 sheets.

1975, Water resources of the Rainy Lake watershed, northeastern Minnesota: U.S. Geol. Survey open-file report, 2 sheets.

Farrell, D. F., Broussard, W. L., Anderson, H. W., Jr., and Hult, M. F., 1975, Water resources of the Cedar River watershed, southeastern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-552, 3 sheets.

Helgesen, J. O., Ericson, D. W., and Lindholm, G. F., 1975, Water resources of the Mississippi and Sauk Rivers watershed, central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-534, 3 sheets.

Helgesen, J. O., Lindholm, G. F., Broussard, W. L., and Ericson, D. W., 1975, Water resources of the Kettle River watershed, east-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-437, 4 sheets.

Helgesen, J. O., Lindholm, G. F., and Ericson, D. W., 1975, Water resources of the Lake of the Woods watershed, north-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-544, 2 sheets.

1974, Water resources of the Little Fork River watershed, northeastern Minnesota: U.S. Geol. Survey open-file report, 2 sheets.

Lindholm, G. F., Farrell, D. F., and Helgesen, J. O., 1974, Water resources of the Crow River watershed, south-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-528, 3 sheets.

Lindholm, G. F., Helgesen, J. O., Broussard, W. L., and Ericson, D. W., 1974, Water resources of the Snake River watershed, east-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-489, 3 sheets.

Lindholm, G. F., Helgesen, J. O., Broussard, W. L., and Farrell, D. F., 1974, Water resources of the Lower St. Croix River watershed, east-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-496, 3 sheets.

Lindholm, G. F., Helgesen, J. O., and Ericson, D. W., 1974, Water resources of the Big Fork River watershed, north-central Minnesota: U.S. Geol. Survey open-file report, 2 sheets.

Lindholm, G. F., Helgesen, J. O., and Mossler, J. H., 1972, Bedrock topography of east-central Minnesota: U.S. Geol. Survey open-file report.

Lindholm, G. F., Oakes, E. L., Ericson, D. W., and Helgesen, J. O., 1972, Water resources of the Crow Wing River watershed, central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-360, 4 sheets.

Macley, R. W., Bidwell, L. E., and Winter, T. C., 1969, Water resources of the Buffalo River watershed, west-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-307, 3 sheets.

Macley, R. W., Winter, T. C., and Bidwell, L. E., 1968, Water resources of the Mankato and Bois de Sioux Rivers watershed, west-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-272, 4 sheets.

1972, Water resources of the Red River of the North drainage basin in Minnesota: U.S. Geol. Survey Water Resources Inv. 1-72, 129 p.

Macley, R. W., Winter, T. C., and Pike, G. M., 1965, Water resources of the Middle River watershed, northeastern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-201, 3 sheets.

1967, Water resources of the Two Rivers watershed, northwestern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-237, 4 sheets.

Norvitch, R. F., Ross, T. C., and Rietkrietz, Alex., 1973, Water resources outlook for the Minneapolis-Saint Paul metropolitan area, Minnesota: Metropolitan Council of the Twin Cities area, 219 p., 59 figs.

Novitzki, R. P., Van Voast, W. A., and Jerabek, L. A., 1969, Water resources of the Yellow Medicine River watershed, southwestern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-326, 3 sheets.

Oakes, E. L., 1964, Bedrock topography of the eastern and central Mesabi Range, northeastern Minnesota: U.S. Geol. Survey Misc. Geol. Inv. Map I-465, 4 sheets.

Oakes, E. L., and Bidwell, L. E., 1968, Water resources of the Mississippi headwaters watershed, north-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-278, 4 sheets.

Olcott, P. G., Ericson, D. W., Felshelm, P. E., and Broussard, W. L., 1976, Water resources of the Lake Superior watershed, northeastern Minnesota: U.S. Geol. Survey open-file report.

Sims, F. K., 1970, Geologic map of Minnesota: Minnesota Geol. Survey Misc. Map Ser., Map M-14.

Van Voast, W. A., Broussard, W. L., and Sheat, D. E., 1972, Water resources of the Minnesota River - Hawk Creek watershed, southwestern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-391, 3 sheets.

Van Voast, W. A., Jerabek, L. A., and Novitzki, R. P., 1970, Water resources of the Redwood River watershed, south-western Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-391, 3 sheets.

Winter, T. C., Bidwell, L. E., and Macley, R. W., 1969, Water resources of the Otter Tail River watershed, west-central Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-296, 4 sheets.

1970, Water resources of the Wild River River watershed, northwestern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-339, 4 sheets.

Winter, T. C., Macley, R. W., and Pike, G. M., 1967, Water resources of the Jossau River watershed, northwestern Minnesota: U.S. Geol. Survey Hydrol. Inv. Atlas HA-241, 3 sheets.

Minnesota, Structure, 1:1,000,000, 1976.

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