

Landslide Inventory Map and Surficial Geology

Valley City Area, North Dakota

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2007

EXPLANATION

QUATERNARY

Qls Landslide Areas

Areas of mass movement that display a net downslope movement of earth material in-mass either in a slumping, sliding or rotational manner. Typically constrained to Pierre Formation strata along the sides of the Sheyenne River Valley. Landslide area (1) is of recent origin.

Qlsc Soil Creep

Areas of mass movement that display an irregular washboard like pattern perpendicular to slope.

OAHE FORMATION

Qal Alluvium

Sand, silts, and clays reworked and deposited in the floodplain of the Sheyenne River.

Qt Terrace Sediments

Cut and fill terraces of localized low relief within the Sheyenne River Valley originating as remnants of alluvium and within glacial sediments.

COLEHARBOR GROUP

Qcl Lacustrine (Lake Plain) Sediments

Dominantly silt and clay deposits in broad areas of low relief.

Qcke Kames and Esker Deposits

Elongate ridges and semi-circular mounds consisting dominantly of sand and gravel of glacial origin.

Qcd Drumlins

Elongate glacial landforms consisting of till or stratified drift.

Qcgm Ground Moraine

Dominantly glacial till sediments consisting of silty-clays and sands deposited by subglacial processes, up to 200 feet in thickness, characterized by gently undulating topography of low-relief.

CRETACEOUS

Kp PIERRE FORMATION

Gray to black shales with gray marls, bentonite, and siltstone interbedded of Upper Cretaceous age. Only exposed along the valley walls of the Sheyenne River Valley. Prone to landslide and slope failure.

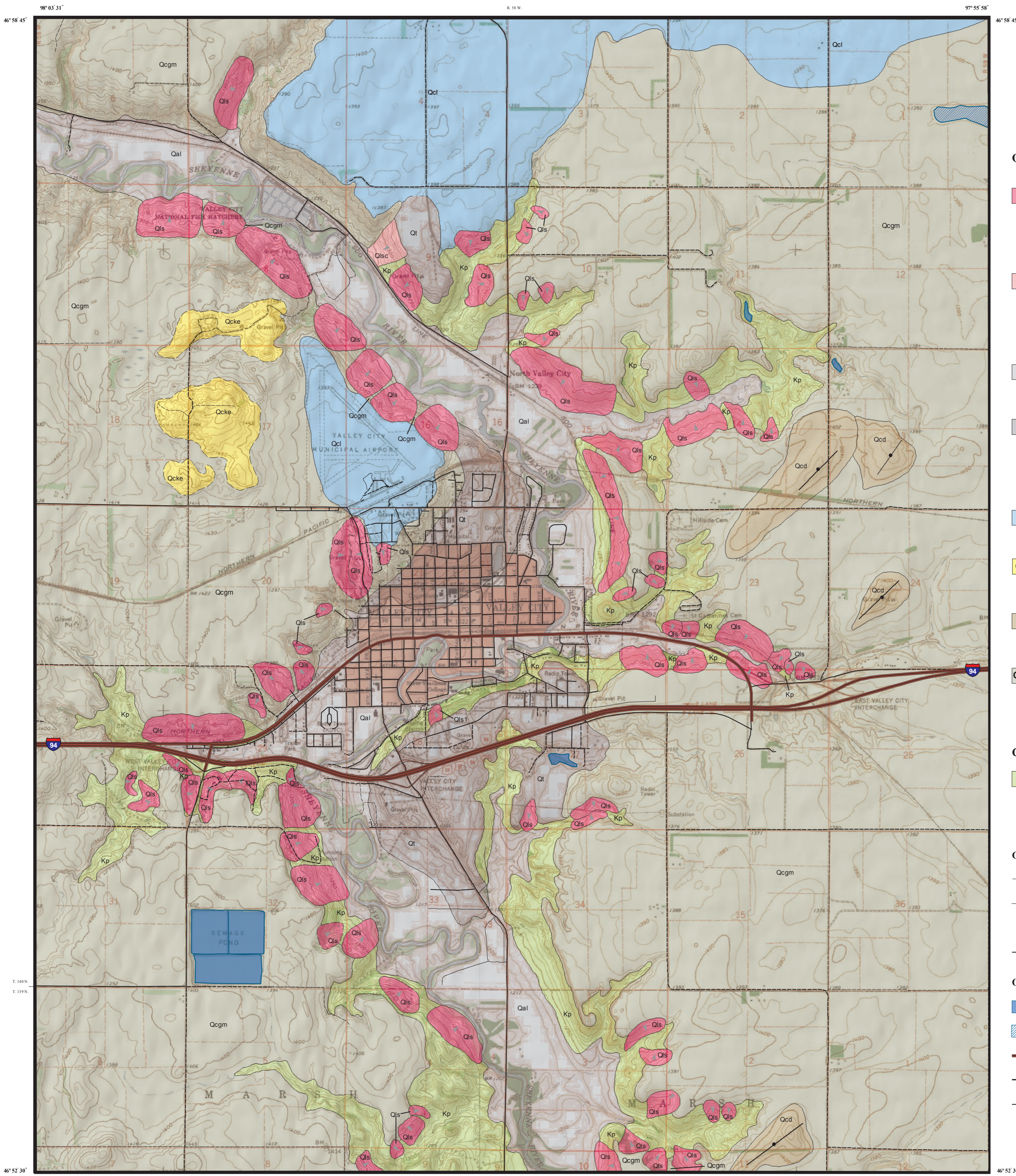
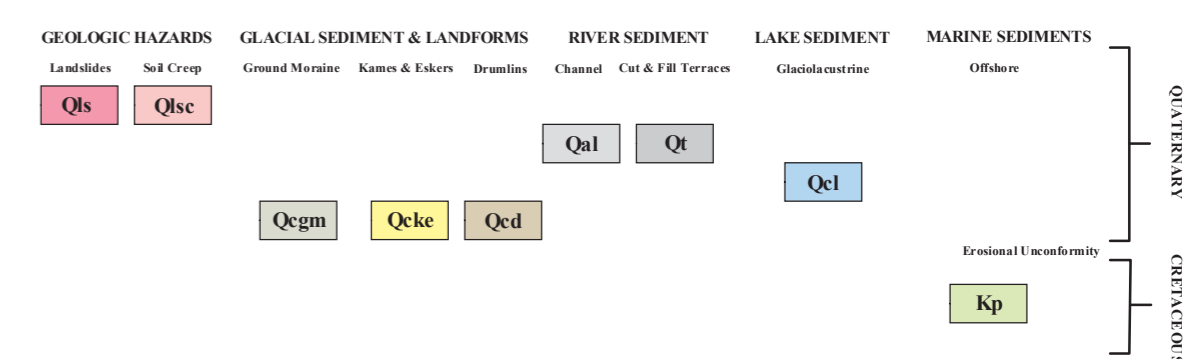
Geologic Symbols

- Known contact between geologic units.
- - - Approximate contact between geologic units Queried where uncertain.
- Direction of landslide movement.
- Orientation of linear glacial landforms.

Other Features

- Water
- Water - Intermittent
- Interstate Highway
- Paved Road
- Unpaved Road

CORRELATION OF MAP UNITS



1895

Valley City Area, North Dakota

Scale 1:24,000

0 0.5 1 Miles

Lambert Conformal Conic Projection Standard Parallels 46° 52' 30" and 46° 58' 45"
1927 North American Datum NGVD 1929
USGS 7.5 Minute Topographic Map Contour Interval 10 Feet
Road and Hydrologic Layers Rectified to 2003 NADP Digital Orthophotos

10° 30'

MN

1961 Magnetic North Declination at Center of Map

CORRELATION OF MAP UNITS