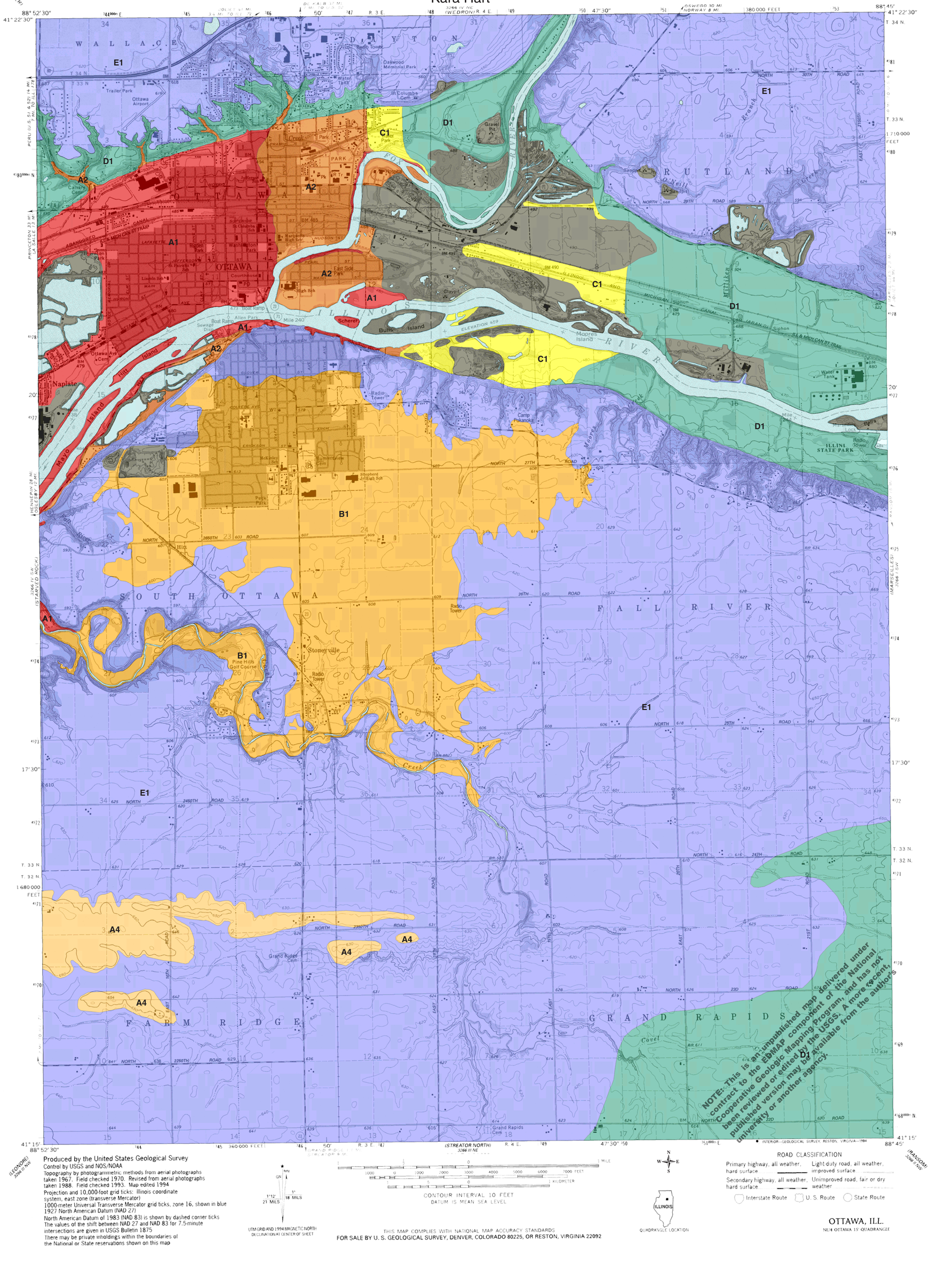
General Aquifer Sensitivity Map

Ottawa Quadrangle, LaSalle County, Illinois

Kara Hart



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Ottawa Quadrangle, LaSalle County, Illinois

2002

Aquifer Sensitivity Classification

A1	Sand and gravel or high-permeability bedrock >50 feet thick within 5 feet of the land suface.
A2	Sand and gravel or high-permeability bedrock >50 feet thick between 5 and 20 feet below the land surface.
A4	Sand and gravel or high-permeability bedrock 20 to 50 feet thick between 5 and 20 feet below the land surface.
B1	Sand and gravel or high-permeability bedrock between 5 and 20 feet thick within 5 feet of the land surface.
C1	Sand and gravel or high-permeability bedrock >50 feet thick between 20 and 50 feet below the land surface.
D1	Sand and gravel or high-permeability bedrock >50 feet thick between 50 and 100 feet below the land surface.
E1	Sand and gravel or high-permeability bedrock not present within 100 feet of the land surface.
	Disturbed ground Areas of active and/or abandoned quarries, strip mines and gravel pits
	Water bodies

Several data sources were used in the construction of this aquifer sensitivity map.
*Well log data from the Illinois State Geolgical Survey
*Soil Survey of LaSalle County, Illinois
*Surfical Geologic Map of the Ottawa 7.5' Quadrangle LaSalle County Illinois
*Field notes by Cady
*Field notes by Williman

Along the flood plain of the Illinois River the aquifer sensitivity is controlled by the St. Peter Sandstone. The LaSalle Anticline is just west of the Ottawa Quadrangle. From west to east the St. Peter Sandstone is dipping into the subsurface creating a step down pattern in the aquifer sensitivity classifications. In the center part of the quadrangle a glacial delta has deposited sands and gravels near the surface. In the southwestern part of the quadrangle an esker is also near the surface. Along Covel Creek the Galena-Platteville is exposed at the surface, and the alluvium is thick enough to be consider an aquifer. Finally, in the southeastern corner of the quadrangle the aquifer sensitivity is defined by the buried Ticona Bedrock Valley Aquifer.

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Produced by the United States Geological Survey
Control by USGS and NOS/NOAA
Topography by photogrammetric methods from aerial photographs taken 1967. Field checked 1970. Revised from aerial photographs taken 1988. Field checked 1993. Map edited 1994
Projection and 10,000-foot grid ticks: Illinois coordinate system, east zone (transverse Mercator)
1000-meter Universal Transverse Mercator grid ticks, zone 16, shown in blue
1927 North American Datum (NAD 27)
North American Datum of 1983 (NAD 83) is shown by dashed corner ticks
The values of the shift between NAD 27 and NAD 83 for 7.5-minute intersections are given in USGS Bulletin 1875
There may be private inholdings within the boundaries of the National or State reservations shown on this map

UTM GRID AND 1994 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092

QUADRANGLE LOCATION

ROAD CLASSIFICATION
Primary highway, all weather, hard surface
Secondary highway, all weather, hard surface
Light-duty road, all weather, improved surface
Unimproved road, fair or dry weather
Interstate Route
U. S. Route
State Route

OTTAWA, ILL.
NE/4 OTTAWA 15' QUADRANGLE

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1994