Ground Water Resources of PICKAWAY COUNTY

by
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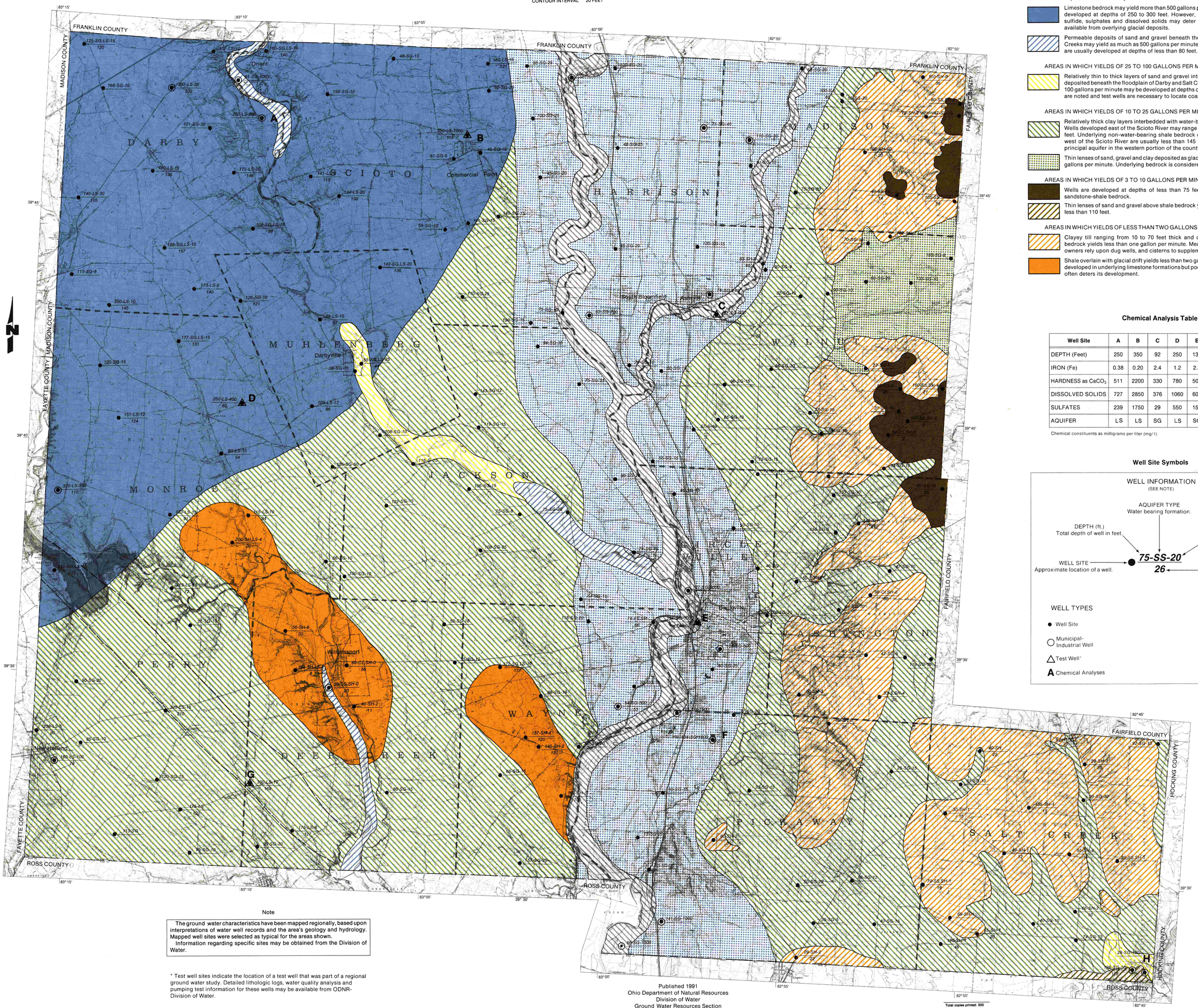
1 0 1 2 Miles

1 0 1 2 Kilometers

CONTOUR INTERVAL 20 FEET

County Line
Township Line
Incorporated City Limit
Location of Ancestral Buried Bedrock Channel



Well Yields

AREAS IN WHICH YIELDS OF AS MUCH AS 1000, OR MORE, GALLONS PER MINUTE MAY BE DEVELOPED.

Permeable sand and gravel deposits adjacent to the Scioto River. Yields in excess of 1000 gallons per minute may be developed from properly constructed large diameter wells of 75 to 135 feet deep.

AREAS IN WHICH YIELDS OF 100 TO 500 GALLONS PER MINUTE MAY BE DEVELOPED.

Regionally extensive, thick permeable deposits of sand and gravel beyond the recharge influence of the Scioto River. Extensive test drilling is recommended to locate the coarse deposits for maximum yield.

Limestone bedrock may yield more than 500 gallons per minute from large diameter wells developed at depths of 250 to 300 feet. However, the degree of hardness, hydrogen sulfide, sulphates and dissolved solids may deter its use. Domestic supplies readily available from overlying glacial deposits.

Permeable deposits of sand and gravel beneath the area adjacent to Deer and Darby Creeks may yield as much as 500 gallons per minute. Properly constructed drilled wells are usually developed at depths of less than 80 feet.

AREAS IN WHICH YIELDS OF 25 TO 100 GALLONS PER MINUTE MAY BE DEVELOPED.

Relatively thin to thick layers of sand and gravel interbedded with thick clay layers are deposited beneath the floodplain of Darby and Salt Creeks. Potential yields of as much as 100 gallons per minute may be developed at depths of less than 75 feet. Isolated aquifers are noted and test wells are necessary to locate coarse deposits.

AREAS IN WHICH YIELDS OF 10 TO 25 GALLONS PER MINUTE MAY BE DEVELOPED.

Relatively thick clay layers interbedded with water-bearing deposits of sand and gravel. Wells developed east of the Scioto River may range in depth from 40 to as much as 185 feet. Underlying non-water-bearing shale bedrock deters deeper drilling. Wells drilled west of the Scioto River are usually less than 145 feet. The limestone bedrock is the principal aquifer in the western portion of the county at depths of as much as 225 feet.

Thin lenses of sand, gravel and clay deposited as glacial moraine may yield as much as 15 gallons per minute. Underlying bedrock is considered as non-water-bearing shale.

AREAS IN WHICH YIELDS OF 3 TO 10 GALLONS PER MINUTE MAY BE DEVELOPED.

Wells are developed at depths of less than 75 feet in the underlying Mississippian sandstone-shale bedrock.

Thin lenses of sand and gravel above shale bedrock yield domestic supplies at depths of less than 110 feet.

AREAS IN WHICH YIELDS OF LESS THAN TWO GALLONS PER MINUTE MAY BE EXPECTED.

Clayey till ranging from 10 to 70 feet thick and overlying non-water-bearing shale bedrock yields less than one gallon per minute. Meager supplies are developed. Home owners rely upon dug wells, and cisterns to supplement domestic needs.

Shale overlain with glacial drift yields less than two gallons per minute. Greater yields are developed in underlying limestone formations but poor quality, such as hydrogen sulfide, often deters its development.

Chemical Analysis Table

Well Site	A	B	C	D	E	F	G	H
DEPTH (Feet)	250	350	92	250	136	135	250	100
IRON (Fe)	0.38	0.20	2.4	1.2	2.8	2.9		0.50
HARDNESS as $CaCO_3$	511	2200	330	780	500	370	570	366
DISSOLVED SOLIDS	727	2850	376	1060	609	410	777	420
SULFATES	239	1750	29	550	150	41	340	51
AQUIFER	LS	LS	SG	LS	SG	SG	LS	SG

Chemical constituents as milligrams per liter (mg/l)

Well Site Symbols

WELL INFORMATION
(SEE NOTE)

AQUIFER TYPE
Water bearing formation.

DEPTH (ft.)
Total depth of well in feet.

YIELD (gpm)
Amount of water a well produces in gallons per minute.

WELL SITE
Approximate location of a well.

75-SS-20
26

DEPTH TO BEDROCK (ft.)
Depth to bedrock in feet.

WELL TYPES

- Well Site
- Municipal-Industrial Well
- Test Well*
- **A** Chemical Analyses

AQUIFER TYPES

S - Sand
G - Gravel
SG - Sand and Gravel
SS - Sandstone
SH - Shale
LS - Limestone
Cl - Clay
FS - Fine Sand

Note

The ground water characteristics have been mapped regionally, based upon interpretations of water well records and the area's geology and hydrology. Mapped well sites were selected as typical for the areas shown.

Information regarding specific sites may be obtained from the Division of Water.

* Test well sites indicate the location of a test well that was part of a regional ground water study. Detailed lithologic logs, water quality analysis and pumping test information for these wells may be available from ODNR-Division of Water.

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