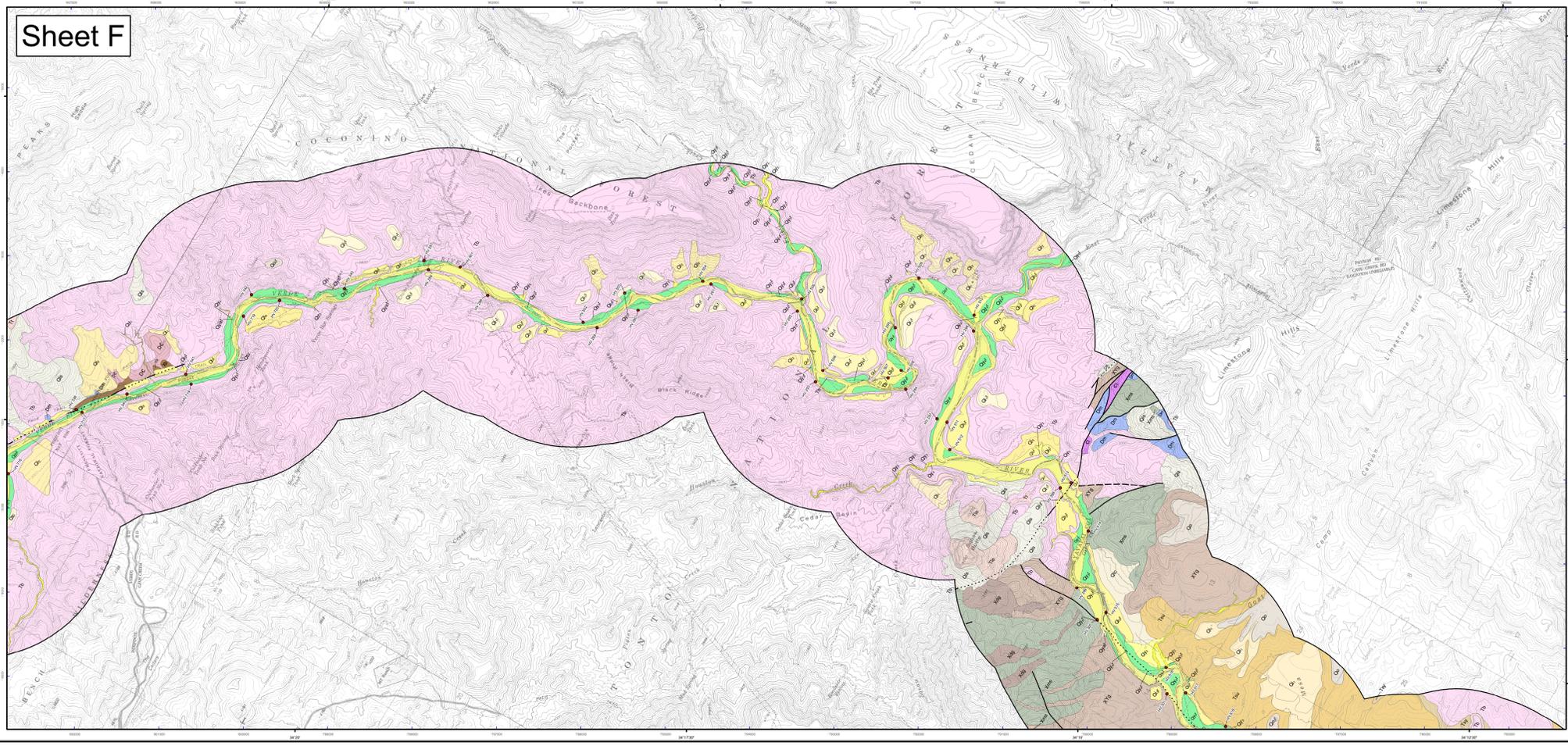


# Sheet F



## Map Unit Descriptions

- |   |   |
|---|---|
| <b>Other Units</b>  | <b>Bedrock Units</b>  |
| <ul style="list-style-type: none"> <li><b>Qc</b> Quaternary hillslope talus and colluvium - unconsolidated to weakly consolidated, very poorly sorted angular rock debris deposited at the base of bedrock slopes</li> </ul>  | <ul style="list-style-type: none"> <li><b>Tb</b> Tertiary basalt, undivided - Tertiary basalt flows, associated cinder cones and pyroclastic rocks, intrusive basalts, and mafic rocks</li> <li><b>Tt</b> Tertiary tuff, undivided - Felsic ash flow tuff, pumice, and siliceous flows</li> <li><b>Tm</b> Tertiary intermediate volcanics, undivided - Hornblende and biotite tuffs, rhyolite, dacite, andesite, and associated volcanic and sedimentary rocks</li> <li><b>Dm</b> Martin Formation - Devonian Martin Formation</li> <li><b>St</b> Tapeats Sandstone - Tapeats sandstone</li> <li><b>DC</b> Undifferentiated lower Paleozoic rocks - Dolomite, limestone, quartzite-pebble conglomerate, and river green shale</li> <li><b>Pr</b> Proterozoic granite, undivided - Fine to coarse grained granitoids, quartz monzonite, porphyry, mylonite, and gneissophyre</li> <li><b>Prs</b> Proterozoic sedimentary, metamissandstone, and metacarbonate rocks, undivided - Quartzite, sandstone, and metacarbonate rocks</li> <li><b>Xdi</b> Diolite and gabbro - Early Proterozoic diolite and gabbro</li> <li><b>Bf</b> Basaltic flows - Fine to medium-grained metamorphosed tholeiite, basalt, and minor ultramafic rocks</li> </ul> |
| <b>River Alluvium</b>   |   |
| <ul style="list-style-type: none"> <li><b>Qr</b> Active river channel deposits - unconsolidated, very poorly sorted sandy to cobbly beds in active river channels</li> <li><b>Qf</b> Flood channel and low terrace deposits - unconsolidated sand, gravel and silt deposits on bars, low terraces and flood channels</li> <li><b>Qh</b> Historical river terrace deposits - unconsolidated sand, gravel and silt deposits on low terraces near the abandoned early historical floodplain</li> <li><b>Qm</b> Late Holocene to historical river terrace deposits - silt, clay, sand and minor gravel terrace deposits slightly above the early historical floodplain</li> <li><b>Qe</b> Late to early Holocene river terrace deposits - silt, clay, sand and minor gravel terrace deposits up to 25 m above the active river channel</li> <li><b>Qd</b> Late Pleistocene river terrace deposits - gravely, sandy river terrace deposits to 25 m above the active river channel</li> <li><b>Qc</b> Middle to late Pleistocene river terrace deposits - high-standing, gravely, sandy river terrace deposits</li> <li><b>Qb</b> Middle Pleistocene river terrace deposits - higher-standing, gravely, sandy river terrace deposits</li> <li><b>Qa</b> Early Pleistocene river terrace deposits, younger - Very high, old Verde River terrace deposits, lower level</li> <li><b>Qv</b> Early Pleistocene river terrace deposits, middle - Very high, old Verde River terrace deposits, middle level</li> <li><b>Qw</b> Early Pleistocene river terrace deposits, older - Very high, old Verde River terrace deposits, upper level</li> </ul> |   |
| <b>Piedmont Alluvium</b>  |   |
| <ul style="list-style-type: none"> <li><b>Qy</b> Modern stream channel deposits - active channel deposits composed of very poorly sorted sand, pebbles, and cobbles with some boulders to moderately-sorted sand and pebbles</li> <li><b>Qz</b> Latest Holocene alluvium - unconsolidated, very poorly sorted silt to cobbly low terrace and over-flow channel deposits</li> <li><b>Qx</b> Late Holocene alluvium, active fan deposits - active portions of young fan deposits exhibiting distributary drainage patterns</li> <li><b>Qw</b> Late Holocene alluvium, planar terrace deposits - located along incised drainages, broad low-level flood fan deposits occupying onto Holocene river alluvium, and infrequently active tributary drainage deposits</li> </ul>  |   |
| <b>Landslide Deposits</b>   |   |
| <ul style="list-style-type: none"> <li><b>Ql</b> Late Pleistocene alluvial fan and terrace deposits - weakly consolidated sandy gravel deposits with moderate soil development</li> <li><b>Qk</b> Middle to late Pleistocene alluvial fan and terrace deposits - weakly consolidated sandy gravel deposits with strong soil development</li> <li><b>Qj</b> Middle to late Pleistocene alluvial fan and terrace deposits - high, moderately consolidated gravely deposits with strong soil development</li> <li><b>Qi</b> Early Pleistocene alluvial fan deposits, undivided - High, moderately consolidated gravely deposits with strong soil development</li> </ul>  |   |
| <b>Cenozoic Basin Deposits</b>  |   |
| <ul style="list-style-type: none"> <li><b>Tp</b> Late Miocene to Pliocene deposits - moderately to strongly indurated conglomerate and sandstone basin fill deposits</li> <li><b>Tu</b> Tertiary deposits, undivided - Moderately to strongly consolidated conglomerate, sandstone, and shale</li> </ul>  |   |

**Bedrock and surficial geologic mapping for areas outside the lateral limits of Holocene river alluvium was compiled from the following sources:**

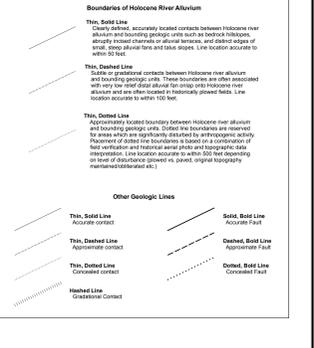
DeWitt, Ed, Langenheim, Victoria, Force, Eric, Vance, R.K., Lindberg, P.A., and Driscoll, R.L., 2008. Geologic map of the Prescott National Forest and the headwaters of the Verde River, Yavapai and Coconino Counties, Arizona. U.S. Geological Survey Scientific Investigations Map 2996, scale 1:100,000, 100-p. pamphlet.

Pearthree, P.A., 1993. Geologic and geomorphic setting of the Verde River from Sullivan Lake to Horseshoe Reservoir, Arizona. Arizona Geological Survey Open-File Report 93-04, 25 p., 5 sheets, scale 1:24,000.

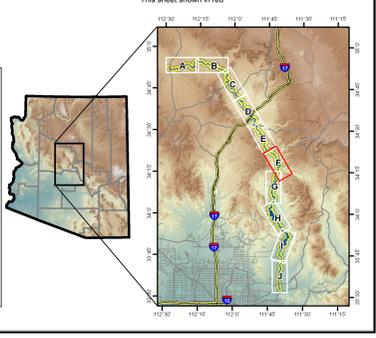
Wuolke, C.T., and Conway, C.M., 1987. Geologic map of the Mazatzal Wilderness and contiguous Roadless Area, Gila, Maricopa, and Yavapai Counties, Arizona. U.S. Geological Survey Open-File Report 87-0664, 22 p., 1 sheet, scale 1:48,000.

# SURFICIAL GEOLOGIC MAP OF THE VERDE RIVER CORRIDOR, CENTRAL ARIZONA

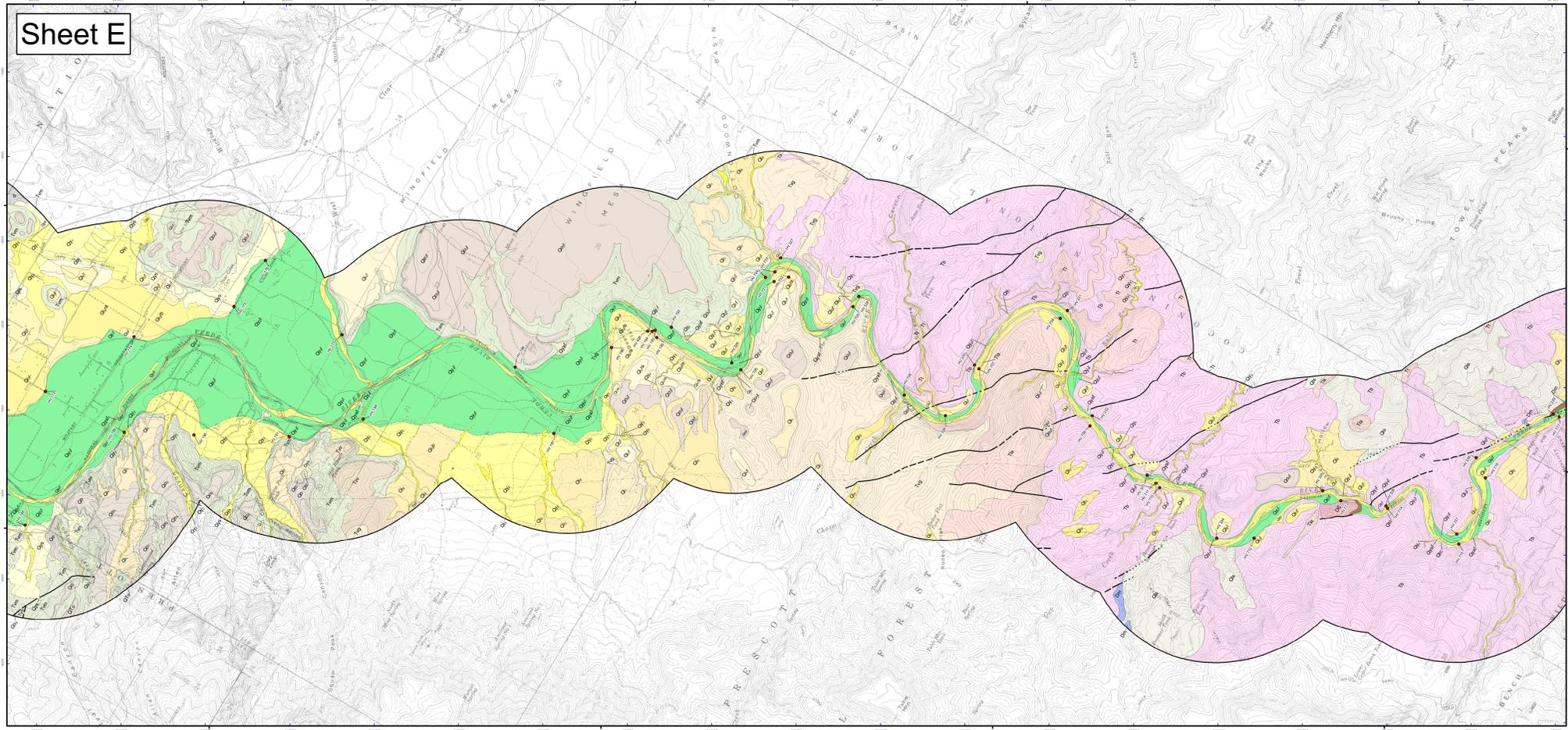
Cook, J.P., Bigio, E.R., Youberg, A., Pearthree, P.A., and House, P.K., July 2010  
 Arizona Geological Survey  
 Digital Map DM-RM-2F  
 version 1.1  
 Funding for this project was provided by the Arizona Department of Water Resources  
 USGS 24k quadrangle series topographic base maps, North American Datum of 1983. Projection and 1000-meter grid ticks (blue). Universal Transverse Mercator, zone 12.



## Location Map



# Sheet E



## Map Unit Descriptions

- |   |   |
|---|---|
| <b>Other Units</b>  | <b>Bedrock Units</b>  |
| <ul style="list-style-type: none"> <li><b>P</b> Paved areas - historically or actively paved fields, irrigated pastures, and other highly disturbed ground</li> <li><b>D</b> Disturbed ground - heavily disturbed ground due to agriculture, extensive excavation, mining activity, or construction of earth dams</li> <li><b>Qc</b> Quaternary hillslope talus and colluvium - unconsolidated to weakly consolidated, very poorly sorted angular rock debris deposited at the base of bedrock slopes</li> </ul>  | <ul style="list-style-type: none"> <li><b>Tb</b> Tertiary basalt, undivided - Tertiary basalt flows, associated cinder cones and pyroclastic rocks, intrusive basalts, and mafic rocks</li> <li><b>Tt</b> Tertiary tuff, undivided - Felsic ash flow tuff, pumice, and siliceous flows</li> <li><b>Tm</b> Tertiary intermediate volcanics, undivided - Hornblende and biotite tuffs, rhyolite, dacite, andesite, and associated volcanic and sedimentary rocks</li> <li><b>Dm</b> Martin Formation - Devonian Martin Formation</li> <li><b>St</b> Tapeats Sandstone - Tapeats sandstone</li> <li><b>DC</b> Undifferentiated lower Paleozoic rocks - Dolomite, limestone, quartzite-pebble conglomerate, and river green shale</li> <li><b>Pr</b> Proterozoic granite, undivided - Fine to coarse grained granitoids, quartz monzonite, porphyry, mylonite, and gneissophyre</li> <li><b>Prs</b> Proterozoic sedimentary, metamissandstone, and metacarbonate rocks, undivided - Quartzite, sandstone, and metacarbonate rocks</li> <li><b>Xdi</b> Diolite and gabbro - Early Proterozoic diolite and gabbro</li> <li><b>Bf</b> Basaltic flows - Fine to medium-grained metamorphosed tholeiite, basalt, and minor ultramafic rocks</li> </ul> |
| <b>River Alluvium</b>   |   |
| <ul style="list-style-type: none"> <li><b>Qr</b> Active river channel deposits - unconsolidated, very poorly sorted sandy to cobbly beds in active river channels</li> <li><b>Qf</b> Flood channel and low terrace deposits - unconsolidated sand, gravel and silt deposits on bars, low terraces and flood channels</li> <li><b>Qh</b> Historical river terrace deposits - unconsolidated sand, gravel and silt deposits on low terraces near the abandoned early historical floodplain</li> <li><b>Qm</b> Late Holocene to historical river terrace deposits - silt, clay, sand and minor gravel terrace deposits slightly above the early historical floodplain</li> <li><b>Qe</b> Late to early Holocene river terrace deposits - silt, clay, sand and minor gravel terrace deposits up to 25 m above the active river channel</li> <li><b>Qd</b> Late Pleistocene river terrace deposits, younger member - gravely, sandy river terrace deposits up to 25 m above the active river channel</li> <li><b>Qc</b> Late Pleistocene river terrace deposits, older member - gravely, sandy river terrace deposits up to 25 m above the active river channel</li> <li><b>Qb</b> Middle to late Pleistocene river terrace deposits - high-standing, gravely, sandy river terrace deposits</li> <li><b>Qa</b> Middle to late Pleistocene river terrace deposits, younger member - high-standing, gravely, sandy river terrace deposits</li> <li><b>Qj</b> Middle to late Pleistocene river terrace deposits - high-standing, gravely, sandy river terrace deposits</li> <li><b>Qi</b> Middle Pleistocene river terrace deposits, older member - higher-standing, gravely, sandy river terrace deposits</li> <li><b>Qv</b> Early Pleistocene river terrace deposits, younger - Very high, old Verde River terrace deposits, lower level</li> <li><b>Qw</b> Early Pleistocene river terrace deposits, middle - Very high, old Verde River terrace deposits, middle level</li> <li><b>Qx</b> Early Pleistocene river terrace deposits, older - Very high, old Verde River terrace deposits, upper level</li> </ul> |   |
| <b>Piedmont Alluvium (continued)</b>  |   |
| <ul style="list-style-type: none"> <li><b>Qy</b> Modern stream channel deposits - active channel deposits composed of very poorly sorted sand, pebbles, and cobbles with some boulders to moderately-sorted sand and pebbles</li> <li><b>Qz</b> Latest Holocene alluvium - unconsolidated, very poorly sorted silt to cobbly low terrace and over-flow channel deposits</li> <li><b>Qx</b> Late Holocene alluvium, active fan deposits - active portions of young fan deposits exhibiting distributary drainage patterns</li> <li><b>Qw</b> Late Holocene alluvium, planar terrace deposits - located along incised drainages, broad low-level flood fan deposits occupying onto Holocene river alluvium, and infrequently active tributary drainage deposits</li> <li><b>Qv</b> Older Holocene alluvium - broad, low relief, undulating fan deposits exhibiting well-developed distributary drainage patterns</li> <li><b>Qu</b> Holocene fine-grained deposits - unconsolidated alluvium derived predominantly from basin fill deposits</li> </ul>  |   |
| <b>Landslide Deposits</b>   |   |
| <ul style="list-style-type: none"> <li><b>Ql</b> Late Pleistocene alluvial fan and terrace deposits - weakly consolidated sandy gravel deposits with moderate soil development</li> <li><b>Qk</b> Middle to late Pleistocene alluvial fan and terrace deposits - weakly consolidated sandy gravel deposits with strong soil development</li> <li><b>Qj</b> Middle to late Pleistocene alluvial fan and terrace deposits - high, moderately consolidated gravely deposits with strong soil development</li> <li><b>Qi</b> Early Pleistocene alluvial fan deposits, younger member - high, thin, early Pleistocene alluvial fan deposits deposited on eroded surfaces out the Verde Formation</li> <li><b>Qh</b> Early Pleistocene alluvium, older member - high, thin, early Pleistocene alluvial fan remains deposited on regional surfaces out of the Verde Formation</li> <li><b>Qg</b> Early Pleistocene alluvial fan deposits, undivided - High, moderately consolidated gravely deposits with strong soil development</li> <li><b>Qf</b> Latest Pliocene to early Pleistocene alluvium - Highest standing fan remains in Verde Valley</li> </ul>   |   |
| <b>Cenozoic Basin Deposits</b>  |   |
| <ul style="list-style-type: none"> <li><b>Tp</b> Late Miocene to Pliocene Verde Formation, conglomeratic facies - Gravely to sandy, moderately to strongly indurated alluvial fan deposits</li> <li><b>Tt</b> Late Miocene to Pliocene Verde Formation, lacustrine facies - Fine-grained, terraced basin fill deposits</li> <li><b>Tv</b> Late Miocene to Pliocene Verde Formation - Late Miocene to Pliocene Verde Formation, undivided</li> <li><b>Tw</b> Interbedded gravel, lacustrine, and volcanic facies - This description is used in areas where volcanic rocks are clearly interbedded with fluvial and lacustrine facies of the Verde Formation</li> </ul>   |   |

**Bedrock and surficial geologic mapping for areas outside the lateral limits of Holocene river alluvium was compiled from the following sources:**

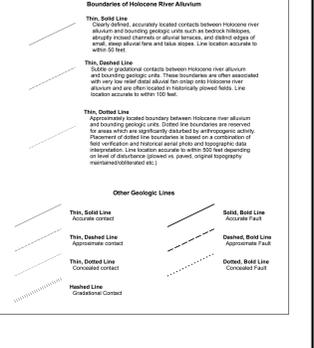
DeWitt, Ed, Langenheim, Victoria, Force, Eric, Vance, R.K., Lindberg, P.A., and Driscoll, R.L., 2008. Geologic map of the Prescott National Forest and the headwaters of the Verde River, Yavapai and Coconino Counties, Arizona. U.S. Geological Survey Scientific Investigations Map 2996, scale 1:100,000, 100-p. pamphlet.

House, P.K., 1994. Surficial geology of the southern Verde Valley, Yavapai County, Arizona, Middle Verde, Camp Verde, and Homer Mountain (Homer Mts.) quadrangles (7.5 min). Arizona Geological Survey Open-File Report 94-23, 20 p., 3 sheets, scale 1:24,000.

Pearthree, P.A., 1993. Geologic and geomorphic setting of the Verde River from Sullivan Lake to Horseshoe Reservoir, Arizona. Arizona Geological Survey Open-File Report 93-04, 25 p., 5 sheets, scale 1:24,000.

# SURFICIAL GEOLOGIC MAP OF THE VERDE RIVER CORRIDOR, CENTRAL ARIZONA

Cook, J.P., Bigio, E.R., Youberg, A., Pearthree, P.A., and House, P.K., July 2010  
 Arizona Geological Survey  
 Digital Map DM-RM-2E  
 version 1.1  
 Funding for this project was provided by the Arizona Department of Water Resources  
 USGS 24k quadrangle series topographic base maps, North American Datum of 1983. Projection and 1000-meter grid ticks (blue). Universal Transverse Mercator, zone 12.



## Location Map

