

**Map Unit Descriptions**

- Other Units**
- Quaternary fillage talus and colluvium - unconsolidated to weakly consolidated, very poorly sorted and/or clay cemented at the base of bedrock slopes
  - Regolith and colluvium formed on deposits of the Verde Formation - Generally fine-grained, in situ deposits mantling gentle slopes on the Verde Formation
- River Alluvium**
- Active river channel deposits - unconsolidated, very poorly sorted sandy to cobbly beds in active river channels
  - Flood channel and low terrace deposits - unconsolidated sand, gravel and silt deposits on bars, low terraces and flood channels
  - Historical river terrace deposits - unconsolidated sand, gravel and silt deposits on low terraces inset below the abandoned early historical floodplain
  - Late Holocene to historical river terrace deposits - silt, clay, sand and minor gravel deposits underlying the early historical floodplain
  - Late Pleistocene river terrace deposits - gravely, sandy river terrace deposits up to 25 m above the active river channel
  - Middle to late Pleistocene river terrace deposits - high-standing, gravely, sandy river terrace deposits
  - Middle Pleistocene river terrace deposits, younger member - higher-standing, gravely, sandy river terrace deposits
  - Middle Pleistocene river terrace deposits, older member - higher-standing, gravely, sandy river terrace deposits
  - Early Pleistocene river terrace deposits, younger - Very high, old Verde River terrace deposits, lower level
  - Early Pleistocene river terrace deposits, middle - Very high old Verde River terrace deposits, middle level
- Piedmont Alluvium**
- 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
  - Latest Holocene alluvium - unconsolidated, very poorly sorted silt to cobbly low terrace and over-flow channel deposits
  - Late Holocene alluvium, active fan deposits - active portions of young fan deposits exhibiting distal drainage patterns
  - Late Holocene alluvium - planar terrace deposits located along incised drainage, broad low-relief distal fan deposits overlapping onto Holocene river alluvium, and infrequently active tributary drainage deposits
  - Older Holocene alluvium - broad, low-relief, undulating fan deposits exhibiting widespread, shallow braided drainage patterns
  - Holocene fine-grained deposits - unconsolidated alluvium derived predominantly from basin fill deposits
  - Holocene alluvium - Holocene alluvium, undivided
  - Late Pleistocene alluvial fan and terrace deposits - weakly consolidated sandy gravel deposits with moderate soil development
  - Middle to late Pleistocene alluvial fan and terrace deposits - weakly consolidated sandy gravel deposits with strong soil development
  - Middle to late Pleistocene alluvial deposits, undivided - Middle to late Pleistocene alluvial deposits, undivided
  - Early Pleistocene alluvial fan and terrace deposits - High, moderately consolidated gravely deposits with strong soil development
  - Early Pleistocene alluvial fan deposits, undivided - High, moderately consolidated gravely deposits, coarse, moderately to well-consolidated gravely deposits, capped high rounded ridges
  - Late Pleistocene to early Pleistocene fan gravel - coarse, moderately to well-consolidated gravely deposits, capped high rounded ridges
- Cenozoic Basin Deposits**
- Late Miocene to Pliocene deposits - moderately to strongly indurated conglomerate and sandstone basin fill deposits
  - Late Miocene to Pliocene Verde Formation, conglomeratic facies - Gravely to sandy, moderately to strongly indurated alluvial fan deposits
  - Late Miocene to Pliocene Verde Formation, lacustrine facies - Fine-grained, laminated silt and clay deposits
- Bedrock Units**
- Tertiary basalt, undivided - Tertiary basalt flows, associated cinder cones and pyroclastic rocks, tuffaceous sands, and mafic rocks
  - Tertiary tuff, undivided - Fine ash flow tuff, pumice, and siliceous flows
  - Tertiary intermediate volcanics, undivided - Hornblende and biotite latites, rhyolites, dacite, andesite, and associated volcanic and sedimentary rocks
  - Supai Formation - Supai formation (Permian and Upper Pennsylvanian) Mudstone, siltstone, sandstone, limestone, and evaporite beds (Dunbar et al., 2008)
  - Redwall Limestone - Mississippian Redwall Limestone
  - Martin Formation - Devonian Martin Formation
  - Redwall limestone and Martin Formation, undivided - none
  - Tappan Sandstone - Tappan sandstone
  - Un differentiated lower Paleozoic rocks - Dolomite, limestone, quartzite, pebble conglomerate, and minor gneiss
  - Proterozoic granite, undivided - Fine to coarse grained granitoids, quartz monzonite, porphyry, mylonite ash flows, mylonite, and granophyre
  - Proterozoic sedimentary, metamorphic, and metavolcanic rocks, undivided - Quartzite, sandstone, and metavolcanic rocks
  - Diorite and gabbro - Early Proterozoic diorite and gabbro

**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., Driscoll, R.L., 2008. Geologic Map of 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., and Peartree, P.A., 1993. Surficial geology of the northern Verde Valley, Yavapai County, Arizona, Clarkdale, Page Springs, Cottonwood, and Cornville quadrangles (7.5 min). Arizona Geological Survey Open-File Report 93-16, 19 p., 4 sheets, scale 1:24,000.

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

by Cook, J.P., Bigio, E.R., Youborg, A., Peartree, P.A., and House, P.K. June 2010

Arizona Geological Survey Digital Map DM-RM-2B

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.

**Boundaries of Holocene River Alluvium**

The **Solid Line** (black) accurately locates contact between Holocene river alluvium and surrounding geologic units such as bedrock, Holocene river terrace deposits, and older Pleistocene river terrace deposits. Line location accurate to within 50 feet.

The **Dashed Line** (black) locates contact between Holocene river alluvium and older Pleistocene river terrace deposits. Line location accurate to within 100 feet.

The **Dotted Line** (black) locates contact between Holocene river alluvium and surrounding geologic units. Dotted boundaries are other associated with only the best available data. Line location accurate to within 100 feet.

The **Approximate Contact** (black) locates contact between Holocene river alluvium and surrounding geologic units. Approximate boundaries are other associated with only the best available data. Line location accurate to within 100 feet.

**Other Geologic Lines**

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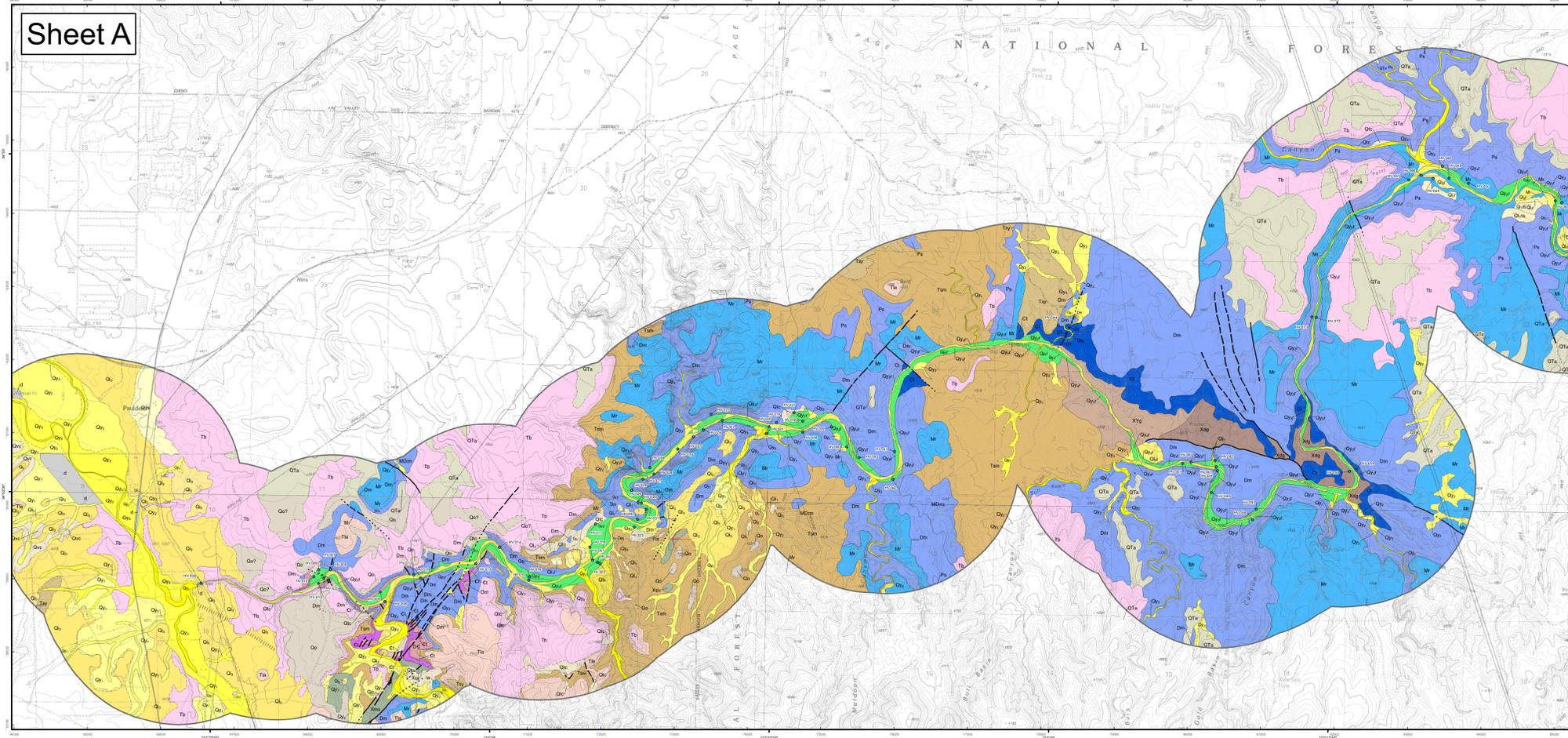
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**Location Map**

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**Map Unit Descriptions**

- Other Units**
- Disturbed ground - heavily disturbed ground due to agriculture, extensive excavation, mining activity, or construction of earth dams
  - Plowed areas - historically or actively plowed fields, irrigated pastures, and other lightly disturbed ground
  - Quaternary fillage talus and colluvium - unconsolidated to weakly consolidated, very poorly sorted and/or clay cemented at the base of bedrock slopes
  - Regolith and colluvium formed on deposits of the Verde Formation - Generally fine-grained, in situ deposits mantling gentle slopes on the Verde Formation
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  - Older Holocene alluvium - broad, low-relief, undulating fan deposits exhibiting widespread, shallow braided drainage patterns
  - Holocene fine-grained deposits - unconsolidated alluvium derived predominantly from basin fill deposits
  - Landslide Deposits - Unsorted sediment resulting from mass down-slope movement (Wulfe and Crone, 1987)
  - Late Pleistocene alluvial fan and terrace deposits - weakly consolidated sandy gravel deposits with moderate soil development
  - Middle to late Pleistocene alluvial fan and terrace deposits - weakly consolidated sandy gravel deposits with strong soil development
  - Early to middle Pleistocene alluvial fan and terrace deposits - High, moderately consolidated gravely deposits with strong soil development
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- Cenozoic Basin Deposits**
- Late Miocene to Pliocene deposits - moderately to strongly indurated conglomerate and sandstone basin fill deposits
  - Oligo-Miocene deposits - Moderately to strongly consolidated conglomerate and sandstone deposited in basins during and after late Tertiary faulting
- Bedrock Units**
- Tertiary basalt, undivided - Tertiary basalt flows, associated cinder cones and pyroclastic rocks, tuffaceous sands, and mafic rocks
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Gootee, B.F., Ferguson, C.A., Spencer, J.E., and Cook, J.P., 2009. Geologic map of the Chino Valley North 7.5' Quadrangle, Yavapai County, Arizona. Arizona Geological Survey Digital Geologic Map DGM-80, scale 1:24,000.

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Arizona Geological Survey Digital Map DM-RM-2A

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