

Description of Map Units

QUATERNARY SYSTEM

HOLOCENE

Ha Alluvium—undifferentiated—deposits of small upland streams; unconsolidated alluvial deposits of minor streams and creeks filling valleys incised into older deposits, with textures varying from gravelly sand to sandy mud.

PLEISTOCENE

PRAIRIE ALLOGROUP

Pp Prairie Allogroup, undifferentiated—diverse depositional sequence of deposits of the Mississippi River, its tributaries, and coastal plain streams; includes terraced fluvial (meander belt, backswamp, and braided stream), colluvial, estuarine, deltaic, and marine units deposited during the Wisconsin to Sangamon interval of the late Pleistocene. Multiple levels along alluvial valleys and coast-parallel trends are grouped into two principal temporal phases. The Prairie Allogroup is undifferentiated where fluvial terrace remnants flank headward portions of stream courses.

Ppl Upper Prairie Allogroup—Younger of Prairie Allogroup temporal phases, consisting of alluvial deposits of ancestral late Pleistocene streams. Grayish-white to reddish-white and light red very fine to medium sand to silt, with clay, to sandy mud, in places including beds of gravelly sand and sandy gravel of chert and vein quartz. Weathers to yellow, orange, and/or brownish-tan hues.

TERTIARY SYSTEM

PLIOCENE

UPLAND ALLOGROUP

Puw Willis Formation, undifferentiated—deeply dissected alluvial sediments deposited by Pliocene streams in west-central Louisiana. The unit is unconformably underlain by Tertiary formations of Miocene to Eocene age, and is bounded downdip by the Lissie surface.

MIOCENE

FLEMING GROUP

Mfb Blounts Creek Formation, Fleming Group—relatively nondescript series of grayish clayey and silty very fine to fine sands, silty and very fine to fine sandy clays, and clayey silts. The principal sedimentary structures comprise rare lamination and low-angle cross lamination. Characteristics of the surface Blounts Creek accord generally with fluvial deposition interpreted as characteristic of an upper deltaic plain setting.

Mfcc Castor Creek Formation, Fleming Group—very fine sandy, grayish clay, with reddish mottles in places. Comprises calcareous clay, with scattered irregular calcareous nodules up to several centimeters long, at numerous localities. May weather to black soil. Local vertebrate fossil finds at Fort Polk in west-central Louisiana all occur in a coarse-sand- and conglomerate-rich sequence that represents a concentration and reworking of these calcareous nodules. Subsurface-to-surface electric-log correlation indicates that this sequence lies very near, if not coincident with, the uppermost portion of the Castor Creek. Fisk interpreted the Castor Creek as reflecting more brackish-water-influenced deposition than for the superjacent Blounts Creek and the subjacent Williamson Creek, based on overall texture and internal features and the occurrence of the Potamidites matsoni fauna. The coarser-grained vertebrate-fossil-bearing formation as indicating fluvial deposition with episodes of repetitive paleosol formation on a flood plain surface.

Mfw Williamson Creek Formation, Fleming Group—very fine to very coarse sand, averaging very fine to medium overall, with overall poor sorting. Overall grain size appears coarser than in other Fleming subunits, with sands containing much more of the coarser size fractions and a larger proportion of quartz granules in places. Granules are extremely abundant locally and consist almost exclusively of quartz, in places comprising sandy granule conglomerate. Internal features include medium-scale trough cross beds in coarser, granule-rich sand and sandy granule conglomerate, with bedding sets fining upward in places. Characteristics of the surface Williamson Creek accord generally with continental, fluvial-dominated deposition.

Mfd Dough Hills Formation, Fleming Group—clay, sand and sandstone, and silt and siltstone, in varying proportions. Includes calcareous clay, containing characteristic calcareous nodules, and may include in places anomalous localized concentrations of fine-grained calcareous rock. According to Hinds (1999), calcareous clay occurs more in the western portion of the outcrop belt, and noncalcareous clay in the eastern part. May weather to black soil. Sand and sandstone are poorly sorted, range in grain size from very fine to very coarse, and contain sparse quartz granules at a number of localities. Overall texture and internal features were interpreted by Fisk (1940) and Hinds (1999) as reflecting more brackish-water-influenced deposition than for the superjacent Williamson Creek and the subjacent Carnahan Bayou.

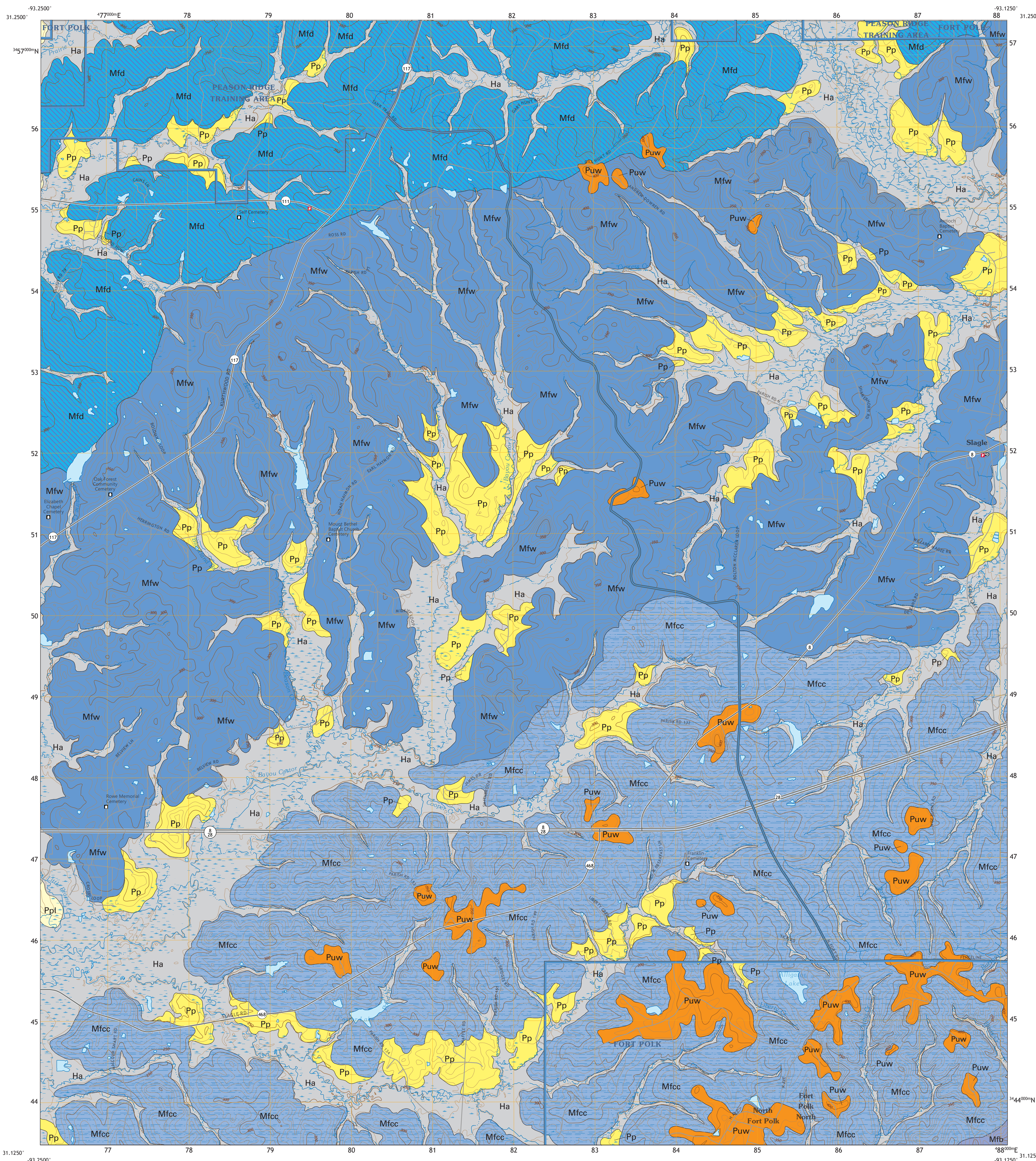
Open Water, Inundated Area, Wetland

Streams

Contact—includes inferred contacts.

Topographic Contours

Department of Defence Boundary



Produced and published by the Louisiana Geological Survey
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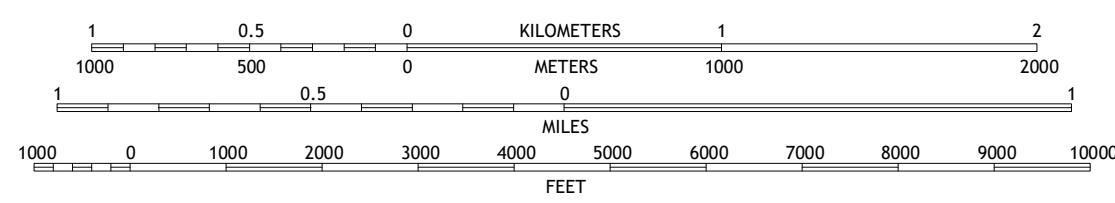
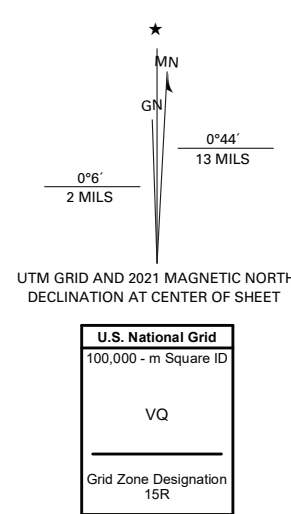
This geologic map was funded by the U.S. Army Corps of Engineers
contract number DACA63-95-D-0051.

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Geology: McCulloh, R.P. and Heinrich, P.V.

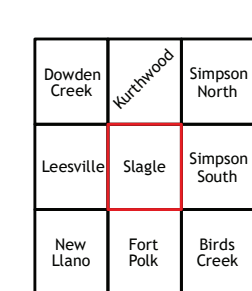
GIS Compilation: Peele R.H., Griffin D.W., Gnanaguruparan, M., Shaik, M., Temento, L., Olinde, B., Binselam, S.A., Franco, J.G., Rahman, A., Cravens, T., Beall, A., Pan, X. and Rainey, S.J.

Cartography: Paulsell, R.L.

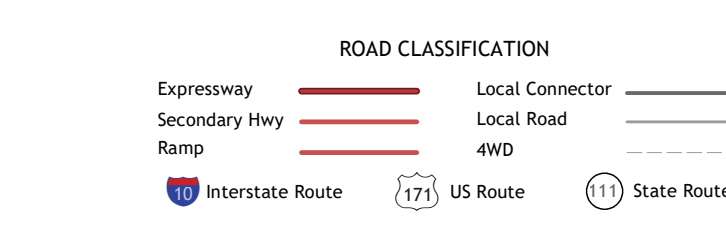


SCALE 1:24,000

Base map from U.S. Geological Survey 1:24,000 GeoPDF
National Geospatial Program US Topo Product Standard, 2011.
Universal Transverse Mercator Projection, Zone 15
North American Datum 1983 (NAD 83)
Contour Interval 10 Feet
North American Vertical Datum 1988



ADJOINING QUADRANGLES
Blounts Creek, Slagle, Simpson North, Simpson South, New Liberty, Fort Polk, Birds Creek



Base Map.....United States Geological Survey, 2020
Boundaries.....LaDOTD, 2007
Contours.....National Elevation Dataset, 2008 - 2011
Hydrography.....National Hydrography Dataset, 2002 - 2017
Names.....GNIS, 1980 - 2017
Roads.....U.S. Census Bureau, 2017
Wetlands.....FWS National Wetlands Inventory 2021

This research is supported by the U.S. Army Corps of Engineers contract number DACA63-95-D-0051. The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Government or the state of Louisiana. This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.

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Geologic Map of the Slagle 7.5 minute quadrangle
Vernon Parish, Louisiana