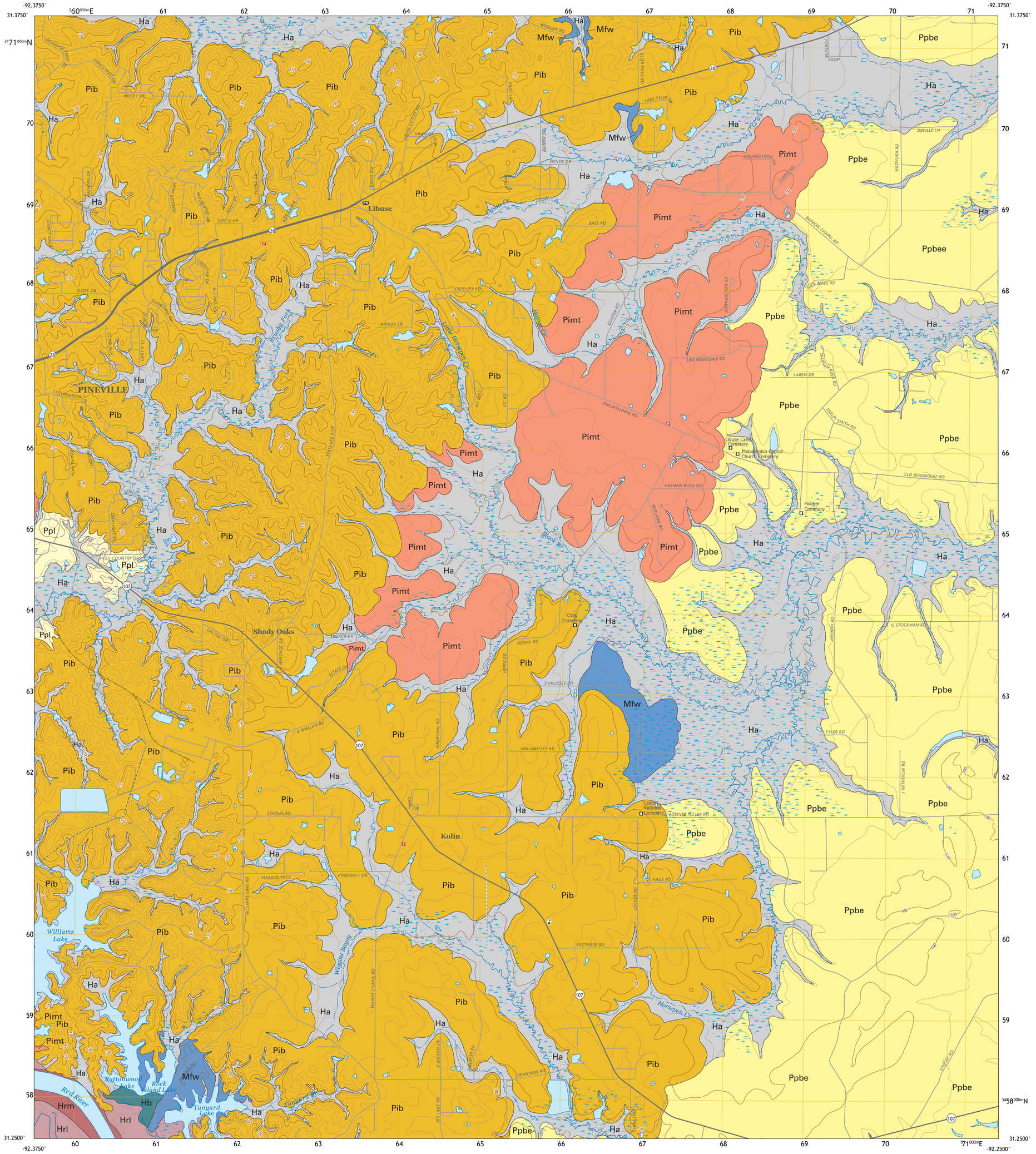
USGS science for a changing world | LSU Louisiana Geological Survey

The National Map OnDemand Topo

LIBUSE QUADRANGLE
LOUISIANA 7.5-MINUTE TOPO



Description of Map Units

QUATERNARY SYSTEM

HOLOCENE

Ha — **Alluvium**—Undifferentiated deposits of small upland streams: alluvial deposits of minor streams and creeks of varying textures, filling valleys incised into older deposits.

Hb — **Backswamp deposits**—Fine-grained Holocene deposits of rivers, underlying the flood basins between meander belts.

Hrm — **Red River meander belt deposits**—Point bar deposits underlying meander belts of the Red River.

Hrl — **Red River natural levee deposits**—deposits forming low natural levees flanking the meander belts of the Red River.

PLEISTOCENE

PRAIRIE ALLOGROUP

Ppl — **Upper Prairie Allogroup**—Late Pleistocene alluvial deposits of the younger of the Prairie Allogroup temporal phases of the Red River valley. Where observed in the area northwest of Shreveport, the unit consists of grayish clayey very fine sand, with red mottles in places, weathering yellowish to yellowish brown.

Ppbe — **Beaumont Alloformation**—coastal-plain deposits of late to middle Pleistocene streams, forming the oldest and topographically highest of the Prairie surfaces of southwestern Louisiana. The surface exhibits relict channels of the Red and Calcasieu River, and the unit includes deposits of the Ingleside barrier trend.

INTERMEDIATE ALLOGROUP

Pimt — **Montgomery alloformation**—meander belt deposits of the Red River in central Louisiana. The unit is blanketed by yellow loam, incises the Bentley alloformation and older units, and is incised by Prairie Allogroup and Holocene units.

Pib — **Bentley alloformation**—dissected alluvial deposits of early Pleistocene streams of primarily the Red River in central Louisiana. The unit is blanketed by yellow loam and incises Tertiary formations; it is incised by younger subunits of the Intermediate allogroup, and by the Prairie Allogroup and younger strata. Equivalent to the Natchez Formation of Mississippi.

TERTIARY SYSTEM

MIOCENE

FLEMING GROUP

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.

Open Water, Inundated Area, Swamp

Contact—includes inferred contacts.

Streams

Topographic Contours

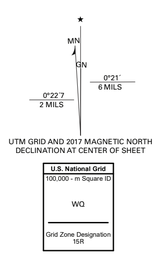
Produced and published by the Louisiana Geological Survey
3079 Energy, Coast & Environment Building, Louisiana State University
Baton Rouge, LA 70803 • 225/578-5320 • www.lgs.lsu.edu

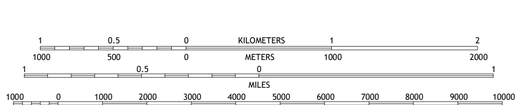
This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program under STATEMAP award number 03HQAG0088.

Geology: Paul V. Heinrich and Richard P. McCulloh

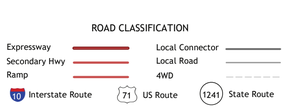
GIS Compilation: R. Hampton Peele, Prammagnaanam Vijaiamernath, and P. Lakshmi Deepti

Revision GIS/Cartography: Robert L. Paulsell





SCALE 1:24,000
CONTOUR INTERVAL 10 FEET
NORTH AMERICAN DATUM OF 1983 (NAD 83)
WORLD GEODETIC SYSTEM 1984 (WGS 84)
UNIVERSAL TRANSVERSE MERCATOR PROJECTION, ZONE 15
NORTH AMERICAN VERTICAL DATUM OF 1988



Geologic Map of the Libuse 7.5 minute quadrangle Grant Parish Louisiana

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
Roads within US Forest Service Lands.....FSTopo Data

This research is supported by the U. S. Geological Survey, National Cooperative Geologic Mapping Program, under USGS award number 03HQAG0088, 2003. 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.