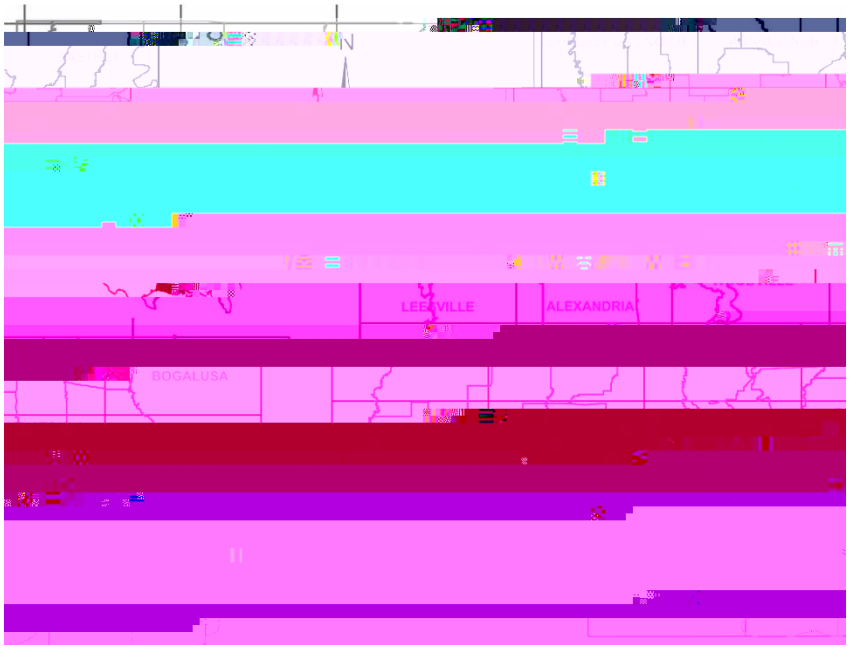
map units. Field observations were then synthesized with the draft surface geology to prepare an updated integrated surface geology layer for the 7.5-minute quadrangle.



1. Location of French Settlement 7.5-minute quadrangle, southeastern Louisiana.

2. Surface geology of the greater Baton Rouge area and environs (mosaic of Heinrich and Autin, 2000; Heinrich and McCulloh, 2007; and McCulloh et al., 2003a, 2009). French Settlement 7.5-minute quadrangle is shown in relation to other mapped quadrangles. Port Hudson, Scotlandville, Baton Rouge West, and Saint Gabriel quadrangles span the boundary

between the Holocene Mississippi alluvial plain and Pliocene (orange) and Pleistocene (yellow to pale orange) sediment of the flanking uplands.

QUATERNARY SYSTEM

HOLOCENE

Hua Holocene undifferentiated alluvium
Hcs Holocene coastal swamp and marsh

PLEISTOCENE

LOESS
[pattern] Peoria Loess

PRAIRIE ALLOGROUP
Pplr Relict Pleistocene ridges
Pph Hammond alloforP ÆMCID.83 Tm[(P)-3(p)-6(h)] C6(h)] C6(h)] C6(h)] C6(h)] C0 1 72.0245aBT1 0c4BT1HniT1 0 0o[(P)-3(p)-6(h)] C6(h)]

classification (McCulloh et al., 2003b). The Plio–Pleistocene strata for which

Upland streams

Streams are incised into Pleistocene uplands east of the Mississippi River flood plain, and comprise the Amite River and its tributaries. The alluvium mapped along these courses (**Hua**) is undifferentiated. The textures of these sediments vary greatly from gravelly sand to either sandy mud or silty mud. Typically, the amount of coarse-grained sediments present directly reflects the texture of the local "bedrock."

Summary of Results

The surface of the French Settlement quadrangle comprises Holocene undifferentiated alluvium of the Amite River and its tributaries, the proximal Mississippi River delta plain, and the Pleistocene Hammond alloformation, Prairie Allogroup, consisting of sediment deposited by the Mississippi and Amite Rivers and by coastal processes. The Hammond forms part of a coast-parallel belt of terraced Pleistocene strata, and is covered by late Pleistocene Peoria Loess up to 3 m thick.

The 1:24,000-scale surface-geologic map of French Settlement quadrangle provides basic geologic data of potential value to planners in the southeastern greater Baton Rouge area. The map also may have utility in guiding sand and gravel exploration in the Hammond, from which they have been produced in an area directly to the north (U.S. Geological Survey, 2011), and in efforts at protection of the underlying Southern Hills aquifer system.

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