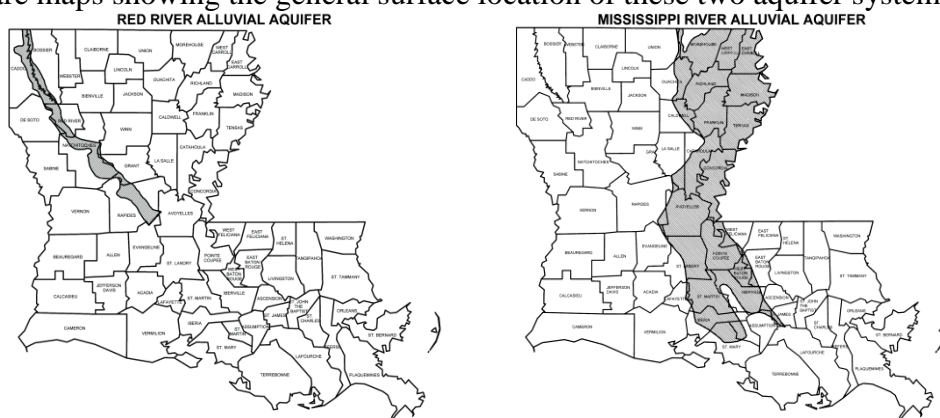


## Department of Natural Resources, Office of Conservation

### General Water Quality Summary

### Louisiana Groundwater - Alluvial Aquifer Systems

The United States Geological Survey (USGS) defines an alluvial aquifer as a water-bearing deposit of unconsolidated material (sand and gravel) left behind by a river or other flowing water. Louisiana has two major alluvial aquifer systems which meet this definition: the Mississippi River and Red River alluvial aquifers. Below are maps showing the general surface location of these two aquifer systems.



Louisiana alluvial aquifer groundwater quality is reported by the USGS to be primarily limited to use for industrial and agricultural purposes due to excessive concentrations of dissolved solids, hardness, iron, or localized salinity. The natural groundwater quality of these aquifer systems is generally considered not suitable for drinking water supply purposes without first undergoing appropriate water treatment. Furthermore, it is reported that other dissolved metals such as arsenic have been, and are expected to be, detected in groundwater in localized areas of these aquifers.

Ingestion of arsenic, other metals, as well as other dissolved solids that may be present in alluvial aquifer groundwater may cause acute or chronic health problems. Arsenic is also a known human carcinogen. If groundwater from these aquifers is to be used for drinking water purposes, proper groundwater sampling and testing should be performed prior to use to determine the appropriate water treatment method that may be necessary to ensure a safe and suitable drinking water supply. Guidance on drinking water quality sampling and testing can be obtained at [http://www.dhh.louisiana.gov/offices/publications/pubs-205/Private Water Wells.pdf](http://www.dhh.louisiana.gov/offices/publications/pubs-205/Private%20Water%20Wells.pdf).

If you have any questions or need further clarification, please contact Environmental Division staff at 225-342-8244 or by email at <http://dnr.louisiana.gov/gwater>.

#### References:

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