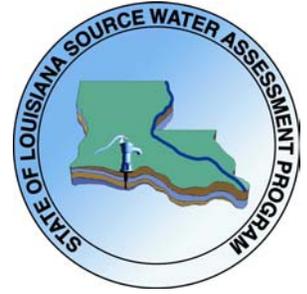




Louisiana Department of Environmental Quality Source Water Assessment Program



Final Potential Susceptibility Analysis of a Ground Water Source of Public Drinking Water

SYSTEM NAME

I. Basis for Analysis

The initial source water assessment you received contains information necessary to understand the basis for this ranking. **It is important to review this information to understand what the ranking of this source means.** The results of this analysis are based on your initial assessment. If you have any questions, please contact LDEQ, Environmental Evaluation Division at 225-765-0578.

II. Background and Methodology

A **Potential Susceptibility Analysis** is a determination of the susceptibility of a public water supply to contamination by significant potential sources identified within the source water protection area. The potential susceptibility analysis consists of a **sensitivity analysis**, which includes factors inherent to the system and source water, and a **vulnerability analysis**, which is the number and types of significant potential sources of contamination identified. Therefore, the potential susceptibility analysis combines a hydrogeologic sensitivity analysis with a vulnerability analysis within the delineated areas. The results of the analysis can be used as a basis for determining appropriate new protection measures or reevaluating current protection efforts.

Factors considered in determining sensitivity for ground water systems include:

- Depth of the well (the shallower, the more sensitive)
- Age of the well (the older, the more sensitive)
- Average ground water velocity in the aquifer in which the well is screened (the higher, the more sensitive)
- Soil recharge potential (the higher, the more sensitive)

The types and quantity of significant potential sources of contamination found and their distance from the well(s) will influence the degree of vulnerability for the water system. Also considered is the density per square mile of roads, railroads, pipelines, and oil/gas wells as well as the number of septic tanks within the delineated area. Based on sensitivity ranking and vulnerability

ranking, a potential susceptibility ranking is assigned to a well and ultimately to a water system based on the number of wells it has. Rankings are assigned as high, medium, or low.

III. Purpose

The objective of the ranking system is to establish a potential susceptibility ranking for each of the public water supply wells in Louisiana and translate it into the potential susceptibility to contamination of each water system. A comparative or “final” potential susceptibility analysis was conducted upon completion of **all** source water protection area inventories to determine a relative risk ranking among all systems. The comparison is based on the sensitivity and the vulnerability ratings for each well. All ground water systems were compared relative to one another. The sole purpose of the final potential susceptibility analysis is to compare all water systems in the state to prioritize protection activities so that areas that have higher risk rankings will be targeted first for protection activities, thereby reducing the potential for contamination. The rankings **should not** be used in any other context. **This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in their water system.**

IV. Additional Information

For additional information on the Source Water Assessment Program and a detailed explanation of the susceptibility analysis methodology please visit our website at <http://www.deq.state.la.us/evaluation/aeps/swap/index.htm>.

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Susceptibility Analysis Results

Water System Name:

PWS ID Number:

Well	Well Sensitivity	Well Vulnerability	Well Susceptibility

Water System Sensitivity: _____ **Water System Vulnerability:** _____

Water System Susceptibility: _____