



Louisiana Department of Environmental Quality Source Water Assessment Program



Final Potential Susceptibility Analysis of a Surface 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 hydrologic 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 surface water systems include:

- Age of the intake (the older, the more sensitive)
- Length of streams in the source water protection area (the longer, the more sensitive)
- Runoff (the higher, the more sensitive) factors - high precipitation, steep slope, low vegetative cover, and low soil permeability contribute to high runoff

The types and quantity of significant potential sources of contamination found and their distance from the surface water source (stream, river, reservoir or lake) 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 in the delineated area as well as the number of septic tanks within the critical area. Based on sensitivity ranking and vulnerability ranking, a potential susceptibility ranking is assigned to an intake and ultimately to a water system based on the number of intakes 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 surface water intakes 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 intake. All surface water systems were compared relative to one another with the exception of those using the Mississippi River as a source. Because of its massive drainage area and potential sources of contamination unique to a large river, the Mississippi River systems were analyzed and compared only with 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:

Intake	Intake Sensitivity (Weighted 10%)	Intake Vulnerability (Weighted 90%)	Intake Susceptibility

Water System Sensitivity: _____
(Weighted 10%)

Water System Vulnerability: _____
(Weighted 90%)

Water System Susceptibility: _____