

Description: South Carolina Annual Drinking Water Quality Sampling Results

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Abstract:

Environmental Data, Public Drinking Water Quality: This data set contains annual sampling concentration averages of Arsenic, Nitrates and Disinfection By-products, also DBPs (Trihalomethanes and Haloacetic acid), for all Public Water Systems (PWS) in South Carolina from 1999. It also contains information on the annual maximum concentration, number of samples taken, number of sampling locations, the date of last sample taken, and the year for which the data is valid for each contaminant (Arsenic, Nitrates, and DBPs).

Purpose:

To provide the public, EPHT grantees, researchers, and other public health professionals with information pertaining to public sources of Drinking Water in the state of South Carolina. This dataset contains a snapshot of annual averages for each Public Water System.

Supplemental Information:

The drinking water data in this data set come from the Bureau of Water at the South Carolina Department of Health and Environmental Control. The 1999 - 2003 data are located in our 'Water Supply Inventory' database. From 2004, all data reside in SDWIS (State Drinking Water Information System). Sampling for Arsenic is conducted on a tri-annual basis (i.e. once every 3 years). Sampling for Nitrates is conducted on an annual basis. Sampling for Disinfectant By-Products (DBPs) (Trihalomethanes and Haloacetic Acid 5), is completed based upon the source of water, disinfection, and size of Public Water System. Sampling for surface water systems with population greater than 10,000 is conducted Quarterly, sampling for surface water with population 500 - 9,999 are sampled one (1) plant per quarter; surface less than 500 population are done once during the warmest month for each plant during the year. Ground water serving greater than 10,000 are done one (1) per plant per quarter; less than 10,000 are done once per plant during the warmest month each year. Annual reporting data carries forward until subsequent monitoring is performed. In order for systems to be required to analyze for DBPs, the system must add disinfection to the water. A system that is purchasing water would only be required to analyze DBPs if the purchaser adds disinfection. If disinfection is not added to the water, the system would be considered untreated and no testing for DBPs would be required. These values are reported as "missing" (-999).

Averages for DBPs (THM/HAA5) are calculated based on the number of sampling sites. Sampling sites are currently determined based on the number of sources of water as well as the aquifer that the water is being drawn from. An example of this would be: A system has two surface water sources. Each of those sources requires four (4) monitoring samples based on their size. Once sampling is performed, the results are submitted and put into SDWIS. Then a quarterly average is calculated for that particular quarter. Every quarter a Running Annual Average (RAA) is computed based on the current quarter and the three previous quarters. For any given year where sampling is done on a quarterly basis there would be four RAAs: (March, June, September, and December). For this report, though, the annual average is an average of the four quarters for each particular year.

Notes:

Any user of this data must have reviewed and understand the metadata content before attempting to interpret or use the Drinking Water Annual Sampling data. This is a public dataset and is not for commercial purposes. Any use of this data should contain proper data source acknowledgement: EQC Water, SC DHEC.

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