



Title: Water Quality Assessment at Underserved Farms

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State: VA **Region:** Mid-Atlantic

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Theme: Drinking Water and Human Health

Situation: There is a need to assess the drinking water quality at underserved farms. Contamination of drinking water resources in these communities could originate from variety sources including household chemicals, septic tanks, fuel storage tanks, fertilizers, and animal manure. Contaminants from such sources could seep into the groundwater and cause adverse health effects. Underserved farmers lack resource for drinking water testing and evaluation. Most underserved farmers also lack proper education to interpret the results they obtain from water testing laboratories. Therefore, it is imperative that efforts be made to ascertain that drinking water resources at underserved farms are safe and protected.

Objectives: The objectives of the project were: (1) To understand or evaluate the term "underserved farmers". (2) To identify underserved farmers in the Mid-Atlantic region. (3) To develop questionnaires and sampling protocols for water quality assessment of underserved farms. (4) To collect water samples from wells and homes and measure selected parameters that indicate drinking water quality.

Methods: Methods used to assess drinking water quality at underserved farms included analysis of water samples that have been collected from various counties with high concentrations of underserved farmers. In Virginia, data collected by Virginia State University (VSU) and Virginia Technical Institute and State University (VPI&SU) were used to generate tables and figures that indicate drinking water status in the three major physiographic regions (the Appalachian, Piedmont and Coastal) of the state.

Partnerships: In Virginia, strong partnerships were established among VSU, VPI&SU, Extension, and NRCS RC&D Coordinators. The collaborative efforts between Extension and NRCS field agents were especially instrumental in identifying underserved farmers and gaining their trust so that they may participate in the water quality assessment.

Research: The project combined the efforts of several state and federal agencies. VSU Students were directly involved in collecting water samples, preparation, and analysis. They also assisted in retrieving water quality data from VPI&SU website that were used in the study. At the end of the study, at least three workshops will be given at strategic locations to educate underserved farmers.

Resources: Participating RC&D Coordinators and Extension field agents in Virginia contributed their time and effort in-kind to the project. Most of the data in this report was obtained by a collaborative effort between VSU and VPI&SU participants in the Mid-Atlantic Water Quality Project.

Results: The 1890 institutions in the Mid-Atlantic are full-participants in this regional effort. Each institution conducts its own workshop, assessment, and counseling of underserved farmers. The short-term goals of this regional project are to evaluate water quality data at underserved farms and provide education on water quality protection. The long-term goals are to assist underserved farmers in locating government assistances for wellhead protection and water testing; and to empower them in protecting their own water resources.



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