

Indian Creek Watershed Association
Water Quality Study, 2007-2008, Final Report
 Union Recharge Area

Water samples for this study, collected by the Monroe County Sanitarian between May and November 2007, are part of a water quality data base for Monroe County. The water tests were conducted by the WV Department of Health and Human Services, Bureau of Public Health, WV State Certified Laboratory. The water samples were tested to determine the presence of fecal coliform and e. coli. Participation in this study was voluntary, free to participating households and confidential. The water test results can be considered valid data because the water was collected by a certified County Sanitarian and tests were conducted by a WV State Certified Laboratory. ICWA is keeping names of households surveyed confidential, as promised.

Location	Number Surveyed	Number Tested	# Tests Unsatisfactory	# Tested Satisfactory	# Refused Test	# Not Tested	Satisfactory Test %
Knobs	26	13	6	7	8	5	54
Rt. 219 N.	33	9	5	4	19	4	44
Rt. 219 S.	32	14	7	7	16	3	50
Willow Bend	39	22	10	12	12	6	55
Rt. 3*	18	2	2	0	12	4	NA
Total	149	60	30	30	67	22	50%

*Many homes along Rt. 3 are served by Union Public Service District

149 houses surveyed. Nine (9) houses visited refused to participate in the survey.

82 Yes to water test

67 No to water test

55% Consented to water test

Six (6) more extensive water tests were conducted in February 2008, results just recently sent to us. Copies of these results are attached to this report. Their good/bad analysis will be forthcoming.

Funding for this Water Quality Study was provided from grants through the WVDEP Stream Partners Program and Canaan Valley Institute. Many thanks to the Monroe County Sanitarian employed by the Monroe County Health Department and to the many residents who participated in the study.

The purpose of the Water Quality Study undertaken by Indian Creek Watershed Association was twofold: the initiation of a water education outreach process and the creation of a water quality data base. The study was conducted in Union Public Service District's Source Water Protection Area or Recharge Area as defined in a Source Water Assessment Report (Jan. 2003), prepared by WVDHHR, Bureau of Public Health, Office of Environmental Health Services.

The area chosen for this study is the land or recharge area located around Union's two back up wells, which serve customers in Union's Public Service District. The wells are located behind Monroe's Courthouse. The oval-shaped recharge area, covering approximately 13,171 acres, runs from below Bickett's Knob, over to the top of Knobs Rd., southeast through Salt Sulphur Springs and the WVU Extension Farm, swinging around to go northwest towards Gates and Rehobeth Church, north towards Beckett's Park, then west up to the Knobs.

Two interns were hired to conduct the door-to-door study, using a custom-designed, 28 question Water Study. Most homes in the Recharge Area were surveyed. After being surveyed by an intern, householders were given an educational sheet covering information on safe water, septic systems and common pollutants. After the surveys were completed, sixty (60) water samples were collected by the Monroe County Sanitarian who then sent the samples to the state laboratory for testing. After water tests were completed, the results were mailed to the households, along with additional information on well safety and chlorination procedures.

It is the hope that this study will generate an interest in Monroe County's water resources. One intern stated, "While working in the community, survey respondents expressed great interest regarding the quality of their water. Bringing up the topic of water and conducting the survey seemed to work as a catalyst in the important discussions on Monroe's water."

Union's Source Water Assessment Report, produced by the WV Bureau of Public Health, outlines several protection activities which could be undertaken in addition to citizen education. Three areas of concern could be investigated by ongoing protection activities, as follows.

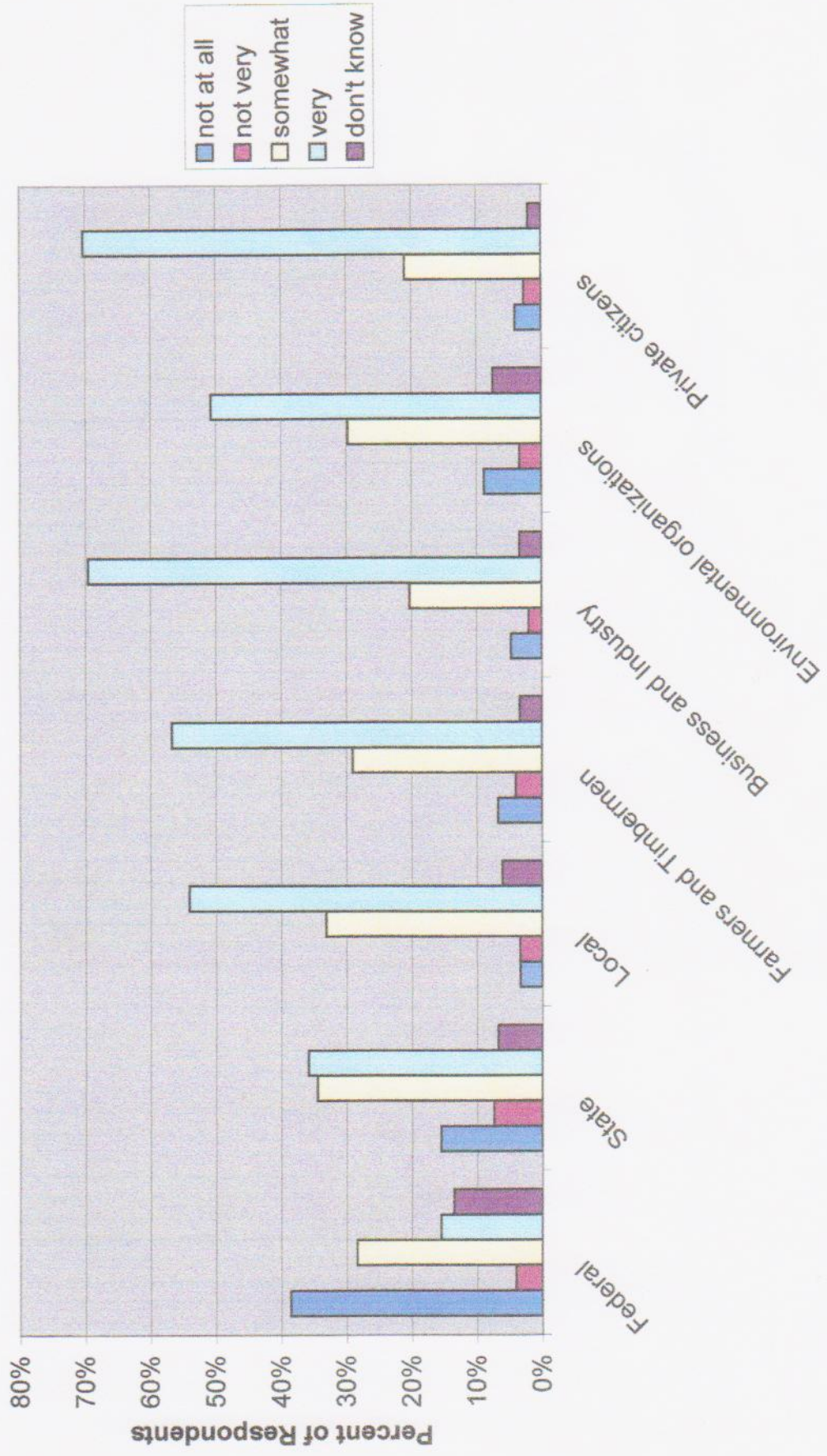
One, obtain information on underground storage tanks located in this area. Five (5) abandoned gas stations have been identified. WVDEP (Department of Environmental Protection) records indicate not all of the old, abandoned tanks have been removed. The old tanks can create a problem if they begin to leak. More investigative work should be conducted regarding these old stations.

Two, sinkholes and karst topography, are a major concern in regards to water protection. Karst does not permit the adequate filtration of groundwater. A discharge or spill of contaminants has the potential to create severe health hazards. Citizens need to be made aware of potential contaminants including industrial and commercial products, pesticides and other chemicals. The use of Best Management Practices should be used in surrounding agricultural areas.

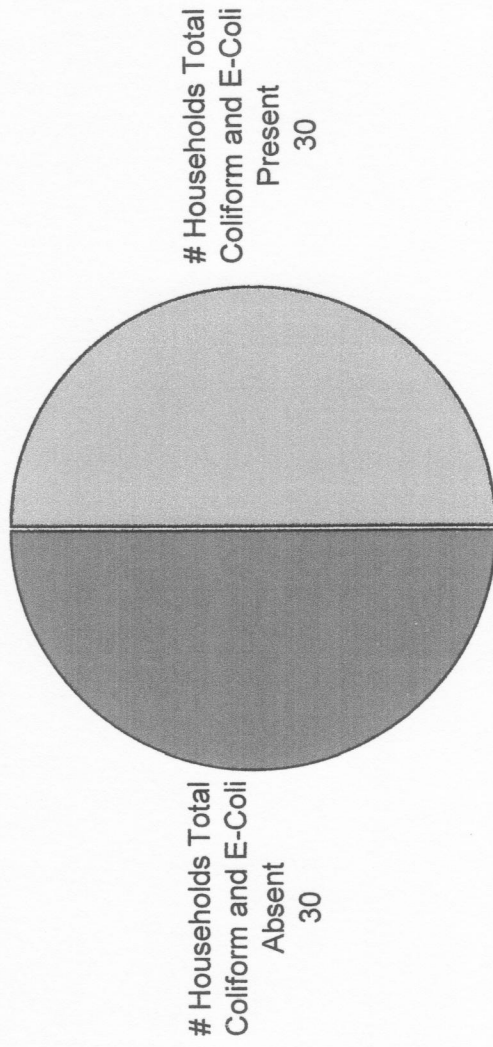
Three, abandoned wells pose a potential hazard to groundwater protection. Improperly capped wells can be a direct line to underground water reserves. Wells can only be properly capped by a certified well driller. Landowners should be notified about the potential danger from abandoned wells and correct remedies to this problem.

This Water Study presents concrete ideas towards establishing a water protection plan for Monroe County, West Virginia. Our other intern expressed her feelings, "Every person who is born on this earth should leave it cleaner than when they got here."

Who Should Be Responsible for Water and Environmental Protection in Monroe County?

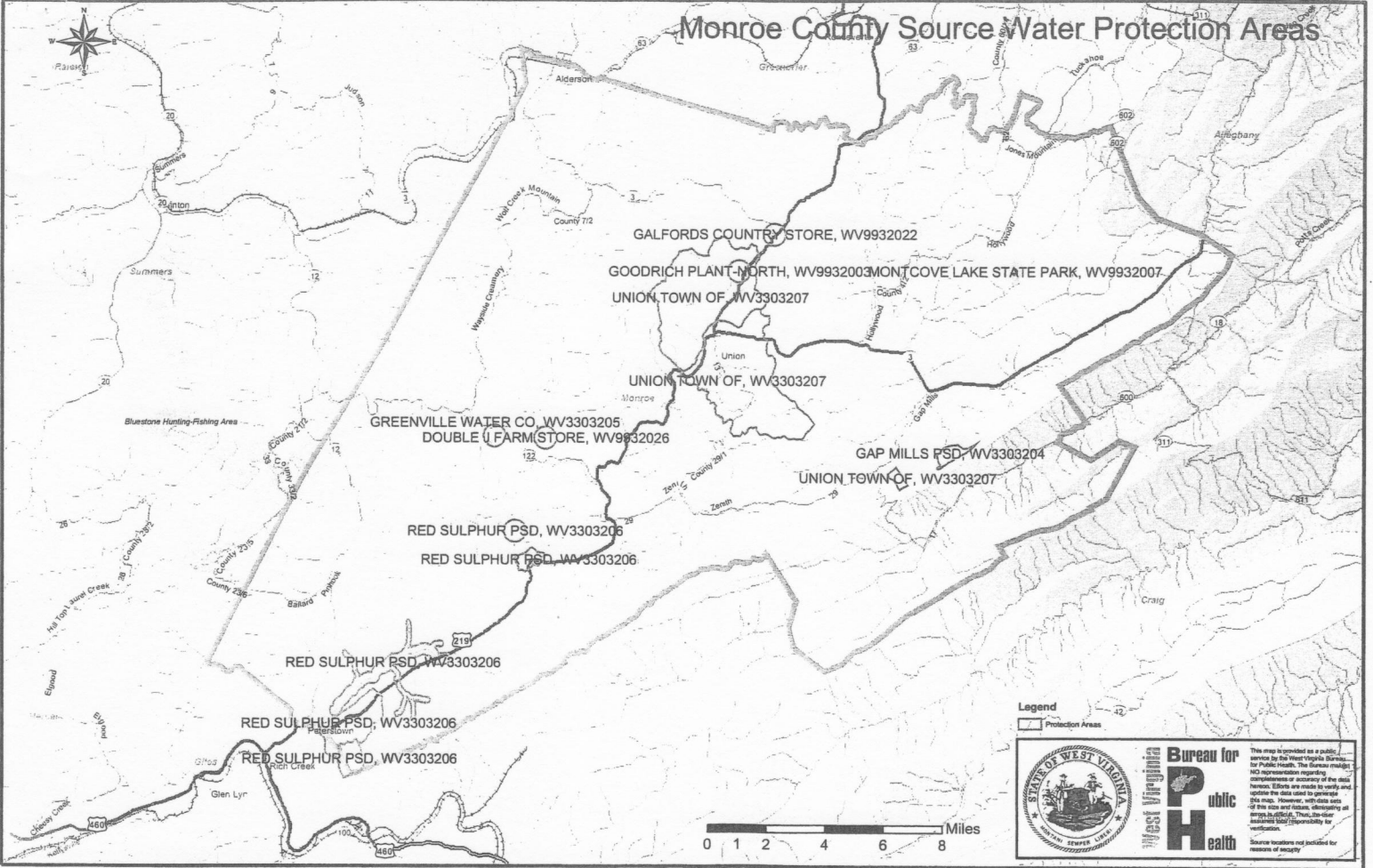


Water Bacteriological Report
Households in Town of Union Recharge Area
Indian Creek Watershed Association Report



□ # Households Total Coliform and E-Coli Present
■ # Households Total Coliform and E-Coli Absent

Monroe County Source Water Protection Areas



Legend

Protection Areas



**Bureau for
Public
Health**

This map is provided as a public service by the West Virginia Bureau for Public Health. The Bureau makes no representation regarding completeness or accuracy of the data herein. Efforts are made to verify and update the data used to generate this map. However, verification of the size and location, delineating as appropriate, the user assumes full responsibility for verification. Source locations not indicated for reasons of security.

