

## SOURCE WATER ASSESSMENT REPORT

System Number: NY0200309

Date: January 24, 2003

System Name: ALFRED VILLAGE WATER SUPPLY

County: ALLEGANY COUNTY

Municipality: ALFRED

System Type: Community

This report results from a statewide program called the Source Water Assessment Program (SWAP), in which each source of water that is used for public drinking water is evaluated for possible and actual threats to its quality. The Source Water Assessment Program is designed to compile, organize and evaluate information to make better decisions regarding protecting sources of public drinking water. The information compiled for the assessments will assist the State in overseeing public water systems and protecting their source water quality. The assessments are also intended to assist owners and operators of public water supplies in protecting sources of public drinking water. It is important to note that this source water assessment *estimates* the *potential* for contamination of *sources* of drinking water, not finished water.

The New York State Department of Health (NYS DOH) contracted with various organizations to develop the source water assessments. The source water assessment reports are based on reasonably available information, primarily from statewide databases. Although efforts have been made to check these reports for accuracy, the nature of the available data makes the elimination of all error from these reports nearly impossible.

The assessment for each well:

- Delineates the source water assessment area(s) – the assessment area approximates the actual land area which could contribute water (and potential contamination) to the well. The assessment area included two zones: an **inner zone** closer to the well which is more likely to contribute recharge to the ground water pumped by the well, and; an **outer zone**, a more broadly delineated area that could contribute recharge or overland runoff to the well. In most cases, more in-depth hydrogeologic analyses could improve the accuracy of these assessment areas.
- Inventories Contaminant Sources – the land uses and specific facilities, (e.g. landfills, Superfund sites) are reviewed within the well's delineated area to assess their potential to contaminate the ground water. The potential contaminant sources located in the inner assessment zone are given more weight.
- Evaluates Susceptibility to contamination– the assessment will not only look at potential sources of contamination within the delineated area(s), but also how likely contamination will reach that well (referred to as the sensitivity of a well). The assessment will consider both of these factors to determine the overall susceptibility of the well to contamination.

The assessment report that follows summarizes the data and rationale used to evaluate the potential for contaminants to impact the wells for the public water system listed above.

Table of Significant Potential Sources of Contamination			
Well Name: WELL #2			
Well Number: 2549630			
Contaminants of Concern	Potential Land Cover Sources of Contamination	Potential Discrete Sources of Contamination	Potential Impact to Water Source
Halogenated Solvents		1 NPDES Facility(s) in Inner zone.	High
		1 Mine(s) in Inner zone.	High
		1 SPDES Permitted Facility(s) in Inner zone.	High
		2 NPDES Pipe(s) in Inner zone.	High
Petroleum Products		1 Mine(s) in Inner zone.	High
		1 NPDES Facility(s) in Inner zone.	High
		1 SPDES Permitted Facility(s) in Inner zone.	High
		2 NPDES Pipe(s) in Inner zone.	High
Herbicides/Pesticides		No significant potential sources of contamination were identified for this well but it has high sensitivity.	Medium-High
Other Industrial Organics		2 NPDES Pipe(s) in Inner zone.	High
		1 SPDES Permitted Facility(s) in Inner zone.	High
		1 Mine(s) in Inner zone.	High
		1 NPDES Facility(s) in Inner zone.	High
Metals		1 SPDES Permitted Facility(s) in Inner zone.	High
		1 NPDES Facility(s) in Inner zone.	High
		2 NPDES Pipe(s) in Inner zone.	High
Nitrates		2 NPDES Pipe(s) in Inner zone.	Very High
		1 NPDES Facility(s) in Inner zone.	Very High
		1 SPDES Permitted Facility(s) in Inner zone.	Very High
Protozoa		2 NPDES Pipe(s) in Inner zone.	High
		1 NPDES Facility(s) in Inner zone.	High
		1 Mine(s) in Inner zone.	High
		1 SPDES Permitted Facility(s) in Inner zone.	High
Enteric Bacteria		2 NPDES Pipe(s) in Inner zone.	Very High
		1 NPDES Facility(s) in Inner zone.	Very High
		1 SPDES Permitted Facility(s) in Inner zone.	Very High

Enteric Viruses	2 NPDES Pipe(s) in Inner zone.	Very High
	1 NPDES Facility(s) in Inner zone.	Very High
	1 SPDES Permitted Facility(s) in Inner zone.	Very High
Cations/Anions (Salts, Sulfate)	1 SPDES Permitted Facility(s) in Inner zone.	High
	2 NPDES Pipe(s) in Inner zone.	High
	1 NPDES Facility(s) in Inner zone.	High
	1 Mine(s) in Inner zone.	High

<b>Table of Significant Potential Sources of Contamination</b>			
<b>Well Name: WELL #1</b>			
<b>Well Number: 2549632</b>			
<b>Contaminants of Concern</b>	<b>Potential Land Cover Sources of Contamination</b>	<b>Potential Discrete Sources of Contamination</b>	<b>Potential Impact to Water Source</b>
Halogenated Solvents		1 Mine(s) in Inner zone.	High
		1 NPDES Facility(s) in Inner zone.	High
		1 SPDES Permitted Facility(s) in Inner zone.	High
		2 NPDES Pipe(s) in Inner zone.	High
Petroleum Products		1 SPDES Permitted Facility(s) in Inner zone.	High
		1 Mine(s) in Inner zone.	High
		1 NPDES Facility(s) in Inner zone.	High
		2 NPDES Pipe(s) in Inner zone.	High
Herbicides/Pesticides		No significant potential sources of contamination were identified for this well but it has high sensitivity.	Medium-High
Other Industrial Organics		1 Mine(s) in Inner zone.	High
		1 NPDES Facility(s) in Inner zone.	High
		1 SPDES Permitted Facility(s) in Inner zone.	High
		2 NPDES Pipe(s) in Inner zone.	High
Metals		2 NPDES Pipe(s) in Inner zone.	High
		1 SPDES Permitted Facility(s) in Inner zone.	High
		1 NPDES Facility(s) in Inner zone.	High
Nitrates		1 SPDES Permitted Facility(s) in Inner zone.	Very High
		1 NPDES Facility(s) in Inner zone.	Very High
		2 NPDES Pipe(s) in Inner zone.	Very High
Protozoa		2 NPDES Pipe(s) in Inner zone.	High
		1 NPDES Facility(s) in Inner zone.	High
		1 SPDES Permitted Facility(s) in Inner zone.	High
		1 Mine(s) in Inner zone.	High
Enteric Bacteria		1 NPDES Facility(s) in Inner zone.	Very High
		2 NPDES Pipe(s) in Inner zone.	Very High
		1 SPDES Permitted Facility(s) in Inner zone.	Very High

Enteric Viruses	2 NPDES Pipe(s) in Inner zone.	Very High
	1 SPDES Permitted Facility(s) in Inner zone.	Very High
	1 NPDES Facility(s) in Inner zone.	Very High
Cations/Anions (Salts, Sulfate)	1 SPDES Permitted Facility(s) in Inner zone.	High
	1 Mine(s) in Inner zone.	High
	1 NPDES Facility(s) in Inner zone.	High
	2 NPDES Pipe(s) in Inner zone.	High

### Sensitivity

The sensitivity of a well to potential sources of contamination is determined by evaluating the well's integrity (depth, casing, etc.), historical monitoring data, and the hydrogeologic factors related to the pathways, fate and transport, and rate of migration of contaminants from sources to the well. The well's sensitivity rating is intended to provide an indication of the potential for contaminant movement toward a well within the natural hydrogeologic setting. There are two separate sensitivity ratings for each well, one rating for chemical contaminants and one rating for microbiological contaminants.

Well Number &	Class:	Sensitivity:	Reason(s):
2549630 WELL #2	Chemical	High	Has detections of nitrates at levels consistent with a high chemical sensitivity.
	Microbial	High	Based on the data provided, the well yields or pumps greater than 100 gpm from an unconfined aquifer.
2549632 WELL #1	Chemical	High	Has detections of nitrates at levels consistent with a high chemical sensitivity.
	Microbial	High	Based on the data provided, the well yields or pumps greater than 100 gpm from an unconfined aquifer.