

## 2007 Watershed Report Card for Krumkill Watershed

A Hudson Basin River Watch Watershed Assessment & Outreach Project

The purpose of this Watershed Report Card is to identify specific water quality problems and raise public awareness of important watershed issues in Hudson Valley communities. Hudson Basin River Watch selected locations with input from local stakeholders and assessed water quality impacts (pollution) at eight stream stations within the Krumkill Watershed in Albany County. Macroinvertebrate samples and basic physical and chemical data were collected in July 2007. A map depicting the sampling locations and impact categories is on pages 2-3 of this brochure.



Water quality was moderately impacted at all 8 stations. The predominant sources of impact to water quality were municipal, industrial and impoundments.

More information on methods, terminology and data interpretation is on page four.

### Krumkill Watershed—Station Descriptions and Water Quality Findings

**Station KRUM 01** (Krumkill) is located just off Route 85 near the Normanskill confluence. The Biological Assessment Profile (BAP) score, 3.8, indicates moderately impacted water quality. The Impact Source Determination (ISD) indicated a community affected by municipal, industrial, and impoundment sources.

**Station KRUM 02** (Unnamed Tributary), is off Route 85. The BAP score was 3.1 indicating moderately impacted conditions. The ISD was inconclusive as results were less than 50% similar to any category.

**Station KRUM 03** (Unnamed Tributary), is located just off of Onondaga Court. The BAP score was 3.6, indicating moderately impacted conditions. The ISD was inconclusive as results were less than 50% similar to any category.

**Station KRUM 04** (Krumkill), is located below the Krumkill Road bridge. The BAP score was 3.9 indicating moderately impacted conditions. The ISD indicated a community affected by municipal, industrial, and impoundment sources .

**Station KRUM 05** (Krumkill), is just below Russell Road bridge. The BAP score was 4.5 falling within the moderately impacted category. The ISD indicated a community affected by municipal, industrial and impoundment sources.

**Station KRUM 06** (Krumkill), is located just below Cross Street bridge. The BAP score is 3.2 and indicates moderately impacted water quality. The ISD indicated a community affected by municipal, industrial, and impoundment sources.

**Station KRUM 07** (Unnamed Tributary), is located at the end of Wood Street. The BAP score was 4.1 indicating moderately impacted conditions. The ISD indicated a community affected by municipal and industrial additions.

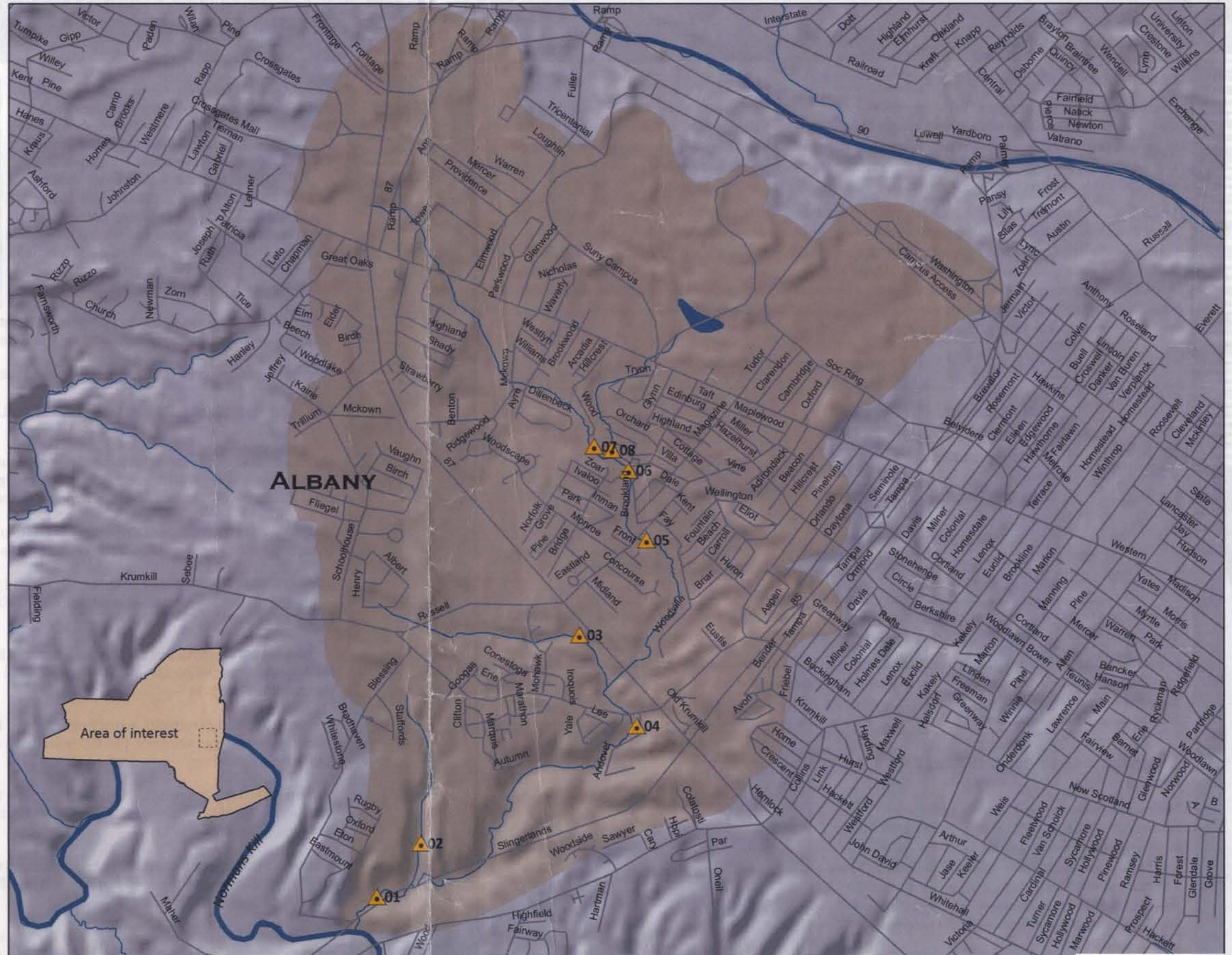
**Station KRUM 08** (Krumkill), is located at the end of Wood Street. The BAP score was 4.4 falling within the moderately impacted category. The ISD indicated a community affected by non-point sources.

**For More Information**

Hudson Basin River Watch: go to [www.hudsonbasin.org/](http://www.hudsonbasin.org/) for survey reports and to download watershed report cards and other documents.

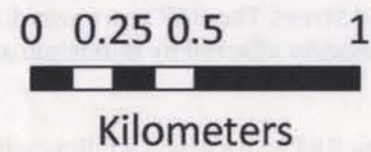
NYS DEC Stream Biomonitoring Unit: go to [www.dec.ny.gov/chemical/23847.html](http://www.dec.ny.gov/chemical/23847.html) and download the Quality Assurance Work Plan (methodology) and 30 Year Trends in Water Quality (summary of statewide findings).

Hudson River Estuary Program: go to [www.dec.ny.gov/lands/4920.html](http://www.dec.ny.gov/lands/4920.html) to download the Action Agenda, view the Top 12 Things Your Community Can Do to Protect Water Resources, and find other resources.



**Legend**

- Non-impacted
- Slightly impacted
- Moderately impacted
- Severely impacted
- Waterbodies
- Stream/River
- Krumkill Watershed
- Cities
- Roads



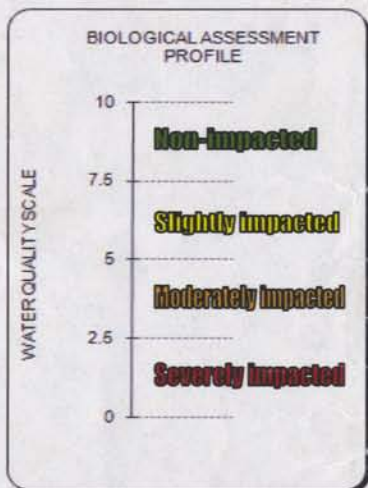
**Krumkill Watershed**

## Hudson River Estuary Watershed Assessment & Outreach Project

### General Information

The New York State Department of Environmental Conservation (NYS DEC) provided funding for this project from the state's Environmental Protection Fund through the Hudson River Estuary Program. This information is intended to increase public awareness of water quality conditions in Hudson River tributaries and to support community-based watershed protection and restoration projects. Where problems were found, follow-up monitoring should be conducted to identify specific causes and sources.

The NYS DEC Stream Biomonitoring Unit's (DEC SBU) methodology was used for all sample collection and analysis tasks. These methods involve collecting, sorting and analyzing a sample of benthic macroinvertebrates (stream bottom-dwelling organisms with no backbone that are visible to the naked eye). These organisms vary in their sensitivity to water quality impacts. DEC SBU's methods use the presence or absence, relative abundance, and diversity of species to obtain an overall water quality score called the Biological Assessment Profile (BAP). BAP is scored 0-10, with 10 indicating the best water quality. The DEC SBU also uses four narrative descriptions of water quality based on the BAP score as illustrated in this graph:



It's important to note that the term "slightly impacted" can be misleading if it's taken out of context. Sites with water quality at only 5.1 on the BAP scale, or almost "moderately impacted", can be described as only "slightly impacted".

Impact Source Determination (ISD) is a ranking of the most likely cause of water quality impacts at each site. The ISD categories are: non point source nutrient enrichment, organic (sewage and animal waste), complex (municipal and industrial inputs), toxic, siltation, impoundment, and natural. ISD is most conclusive if a test community exhibits at least 50% similarity to an impact category.

### Interpreting and Following Up on Water Quality Findings

Many factors influence the BAP score. Professional guidance should be sought from HBRW, the NYS DEC SBU, or other qualified sources about data interpretation questions. In general, however, sites with BAP scores below 7.5 usually warrant further investigation. Sites below 5.0 should be subject to detailed study to identify the source(s) of impairment and guide water quality improvement measures.

