

Elroy - Juneau County

Wastewater Receiving Stream Classification

The community of Elroy treats sewage waste with a trickling filter system and the effluent is discharged to an unnamed tributary to the Baraboo River. The outfall is about 200 feet above the confluence with the Baraboo. The stream drains what is known as Murphy Valley and has a drainage area of six square miles. Barry Holmstrom of USGS calculates a $Q_{7,10}$ estimate of 0.32 cfs for this stream.

Murphy Valley Creek is 2-3 feet wide and only a few inches deep. It flows through farmland and much of it has been ditched and straightened. A survey was done under winter conditions and most of it was iced over. A look at the benthic community revealed a sparse population, but caddis flies and mayflies were present. The reason for the low number of organisms is unknown. Possible explanations include lack of substrate and nonpoint pollution. The stream does not support a cold water fishery and is too small for any warm water fishery other than forage minnows. Jack Zimmerman, Area Fisheries Biologist for Juneau County, has had little direct experience with Murphy Valley Creek, but expects a few minnows as residents and suckers may be present in the lower reaches during spring.

Recommendations: It is expected that Murphy Valley Creek should be able to maintain the 5 ppm dissolved oxygen standard for fish and aquatic life, but the reason for the sparse invertebrate community remains unexplained and the small physical size prevents anything but forage minnows for a fishery. On the basis that the intermediate aquatic life standards will be sufficient to protect the aquatic community, Murphy Valley Creek should have the not supporting a balanced aquatic community water quality classification. The hydrologic classification should be continuous.

Survey Date: 3/15/78

Survey Crew: Bill Jaeger - Assistant Water Pollution Biologist

Report Prepared by Bill Jaeger - 3/21/78