August 28, 1981

3200

File

Joe Kurz JEK

Stream Classification for Rainbow Springs Tributary

The Rainbow Springs Tributary discharges to the Mukwonago River in T5N, R18E, Section 32, NWNW and is part of the Fox River Basin Assessment. The stream flows entirely through land which is part of the Rainbow Springs Resort. The primary land use along the stream is golf course.

The stream originates from a small spring pond in T4N, R18E, Section 6, NWSE and flows north-northeast. The southern outlet from Rainbow Springs Lake discharges to the main stem of the tributary. At the time of the stream classification survey, July 29, 1981, no water was flowing out of the lake but groundwater was flowing into the outlet stream. In the golf course area, the main stem of the tributary flows through a series of four man-made ponds. Discharge from the tributary was estimated at 2.5 cfs. No Q7,10 or Q7,2 information is available for this stream.

Minnow species were common in the tributary and one northern pike was also observed. Heptageniidae and scuds were abundant. Approximately 80--100% of the stream had macrophyte cover, primarily sedges, grasses, Elodea and Potamogeton.

The temperature of the tributary ranged around 16.5 - 16.8°C. The lower reading was taken between the second and third ponds at the golf course road. One would expect higher water temperatures from the ponds. These low temperatures indicate a great influence by groundwater flows. During the development of Rainbow Springs these ponds were dug for holding trout as a private fish hatchery. No records of trout stocking have been documented. It is concluded that these ponds and the stream flowing through them are capable of supporting trout because of the low water temperatures.

It is the recommendation of this Department to classify the Rainbow Springs tributary as continuous, full fish and aquatic life. The Mukwonago River is also classified as continuous, full fish and aquatic life.

JK:jm

cc: Frank Schultz Dan Moran - WQM/2 FORM 3600-39

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