

STREAM CLASSIFICATION

Vanden 113
APPLE CREEK
recopied - using
new SC procedure
12/82

Apple Creek - Town of Vandebroek

DATE: November 2, 1978

SURVEY TEAM: Dennis C. Weisensel, District Biologist *D.C.W.*
Tim Rasman, Assistant Water Pollution Biologist *T.R.*

SUBJECT: The classification of Apple Creek in conjunction with
a proposed discharge from Vandebroek Sanitary District # 1.
Currently no discharge is occurring.

HISTORY: Apple Creek drains a watershed that is primarily agriculture. The main contribution to the Creek is surface water run off. Farming is conducted up to the bank in most of the upper 2/3 of the watershed. The lower 1/3 is generally buffered by tree and lower shrub growth. The banks of the stream consist of clay subsoils throughout most of the watershed. Erosion and silting of the stream is common. The stream substrate is made up of rubble, gravel and silt. Apple Creek meanders naturally with natural banks and flows over natural riffle and pool areas. In some areas, long run areas occur with moderate depths. Apple Creek was observed dry at County Trunk "D" just before it enters the Fox River during August 1971 (Surface Water Resources Of Outagamie County 1973).

REPORT: Stations A, B, C, and D, are located along County Trunk "CC". County Trunk "CC" proceeds in a north - south direction and intersects four tributaries to Apple Creek. The small intermitten tributaries drain agricultural lands in the Town of Vandebroek. The tributaries are lined with grassy vegetation and farmed, up to and in some cases such as station "B", right through the drainage ways. They all appear to have been dredged sometime in the past or furrowed out in places with a plow. All four tributaries have intermitten flows. The substrates are basically silts and soils retained by the vegetation that grows through the drainage ways.

Station "E" is located on the main stem of Apple Creek where State Highway "55" crosses. The main stem at this location and downstream meanders with natural banks. The substrate consists of rubble, gravel and silt. A riffle area

500' above the "55" bridge contained scarce numbers of Ascellus sp., chironamids, and moderate numbers of Simulium sp. Minnows were noted in the pool areas and a flow .42 CFS was recorded. The stream ranges from 30' wide, 2' deep in the long run areas to 5' wide, 3" deep in the riffle area. During low flow periods, I believe the stream becomes intermitten.

CONCLUSION: Apple Creek watershed contains heavy agricultural land use. The farming activities in conjunction with the clay soils of the area causes the stream to be very turbid, particularly during peak run off periods. Nutrients and silt degrades the water quality of the stream at the present time. Fisheries' reports indicate the presence of Northern Pike and Carp in the lower 1/3 of the Creek. Northern Pike spawning activities may take place throughout the entire watershed. Past evidence (Surface Water Resource Of Outagamie County 1973) indicates that Apple Creek is an intermitten stream. Although Apple Creek, may on occasion, have a flow of less than 0.1 CFS or cease to flow, it does exhibit characteristics of a perpetually wet environment down stream from State Highway "55". The morphology of the Creek (pool and riffle areas) generally are capable of supporting a diverse aquatic biota. The lack of a diverse aquatic biota at station "E" may be due to agricultural run off.

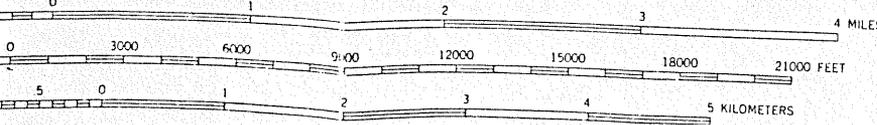
CLASSIFICATION: Apple Creek shall be classified as continuous, no variance granted from its mouth to State Highway "55". The tributaries indicated as A, B, C, and D, shall be classified as noncontinuous with a marginal variance because of their unnatural maintenance.

DCW:cjs

11/8/78



SCALE 1:62500



CONTOUR INTERVAL 10 FEET
 DATUM IS MEAN SEA LEVEL
 DEPTH CURVES AND SOUNDINGS IN FEET-DATUM IS NORMAL POOL LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
 FOR SALE BY U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C. 20242
 CONSISTING GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN 53706
 FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

INTERIOR-GEOLOGICAL SURVEY
 WASHINGTON, D. C. - 1971
 398000m. E. SHERWOOD 5 3 3 MI. STOCKBRIDGE 14 MI. 88° 15'

ROAD CLASSIFICATION

- Heavy-duty
- Medium-duty
- Light-duty
- Unimproved dirt
- U. S. Route
- State Route



The SW/4 of this area also covered by
 1:24000 scale map of Appleton,
 7.5 minute quadrangle, surveyed 1955.

APPLETON, WIS.
 N4415-W8815/15

1955

AMS 3372 IV-SERIES V761



STATION "A" FACING UPSTREAM



STATION "A" FACING DOWNSTREAM



STATION "B" FACING UPSTREAM



STATION "C" FACING DOWNSTREAM



STATION "D" FACING DOWNSTREAM



STATION "E" FACING UPSTREAM



STATION "E" FACING DOWNSTREAM