

Date 6/26/2000

Facility Name NONE

Receiving Water CHEROKEE CREEK

Evaluated by Will Wewersyn

This stream classification is not included in the revised code because (select one):

The discharger is no longer at this location.

A new classification has resulted in a full fish and aquatic life designation.  
New survey date \_\_\_\_\_ Please provide copy of new classification report.

This receiving water should be added to the database and to the code. Specify information, as it should be included in code.

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Other (please explain)

THERE ARE NO SPECIFIC PERMITS  
(W.W.) WHICH DISCHARGE TO THIS STREAM  
EXCLUDE FROM THE CODE

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**Cherokee Park Creek Stream Classification**  
**Kinnickinnic River Watershed**  
**from Richard Randall, 1984**  
**Water Resource Management**  
**Southeast District**  
revised March, 1993

Introduction

Cherokee Park Creek is a small intermittent tributary of Wilson Park Creek with a drainage area of 1.04 sq. miles. The stream originates in Sec. 24, T6N, R21E from two separate storm sewer outfalls in the city of Greenfield and flows northeast for 1.5 miles. Land uses in the drainage area include medium density residential, two cemeteries, a county park and a small golf course. The stream also flows through a 0.25 mile conduit beneath a major commercial area upstream of the confluence with Wilson Park Creek. There are several storm sewer outfalls discharging to Cherokee Park Creek and no known sanitary sewer flow relief devices or industrial discharges.

Habitat Evaluation

Cherokee Park Creek conveys primarily storm water runoff and at times may cease to flow. There is no Q7,10 data available and the stream is delineated as intermittent on U.S. Geological 7.5" quadrangle maps. Sections of the stream have been ditched resulting in a fairly uniform stream channel. The remaining natural flowing sections provide some pools and riffles, however water depths are usually inadequate and the stream may freeze-up during winter. Average width of the stream is about 1-3 feet, and the average depth is about 0.1-0.3 feet. The stream substrate are primarily gravel, sand, and silt with areas of scour and deposition. Over bank flows are probably common during most storm events resulting in severe bank erosion in the natural flowing reach between Howard Ave. and Loomis Rd. These sections are located primarily in wooded areas where bank vegetation is scarce. Bank erosion is less significant in the open areas where grasses, sedges, and cattails dominate along the banks. Habitat in the stream is rated poor using the Stream System Habitat Rating form due to inadequate depths, bank erosion, channelization, hydraulic scour, deposition, and urban nonpoint sources.

Biological

A benthic macroinvertebrate sample was collected on May of 1984 at Loomis Road upstream of the underground conduit in a small riffle area. The sample was dominated by Cricotopus spp. resulting in a Hilsenhoff Biotic Index of 3.90, indicating poor water quality. No fishery data is available for Cherokee Park Creek, however minnow fry were observed in a small pool area at Loomis Road during August 1984. These fish may have come from a small impounded area in one of the cemeteries upstream. Most of the stream does not provide suitable habitat to support a viable fishery. Filamentous

algae was also observed in the stream adjacent to the golf course.

### Water Quality

Chemical data on Cherokee Park Creek is limited to one base flow sample collected October 24, 1975 above the confluence with Wilson Park Creek as part of the Milwaukee County Rivers Basin Report. The biochemical oxygen demand (BOD5) was 200 mg/l suggesting a waste discharge. Flow in the stream was estimated at less than 0.004 cfs and the other parameters (dissolved oxygen and temperature) did not indicate any significant impacts. Currently there are no known permitted discharges in the watershed.

### Conclusions and Recommendations

Habitat in Cherokee Park Creek is limited by insufficient stream flow, bank erosion, deposition, channelization, and scouring of the bottom channel. Urban nonpoint sources and low flow are limiting the biological community which presently consists of very tolerant macroinvertebrates and an occasional minnow fry. Insufficient flow will always limit the stream potential, however storm water management and bank stabilization will improve water quality along Wilson Park Cr., the Kinnickinnic River and estuary.

Cherokee Park Creek does not have the potential to support a viable fish community due to intermittent flow and degraded habitat. Therefore it is recommended that the stream be classified as **Limited Aquatic Life** per NR 102 and NR 104 capable of supporting very tolerant and limited macroinvertebrate community and an occasional very tolerant fish.

### References

- Ball, Joseph, 1982. Stream Classification Guidelines For Wisconsin. WDNR Technical Bulletin.
- Hilsenhoff, William L., 1982. Using a Biotic Index to Evaluate Water Quality in Streams. WDNR Technical Bulletin No. 132.
- SEWRPC 1978. A Comprehensive Plan for the Kinnickinnic River Watershed. Planning Report No.32.
- WDNR 1977. Milwaukee County River Basins Report. Water Resource Management, Southeast District.

CORRESPONDENCE/MEMORANDUM

Date: July 30, 1993

File Ref: 3200

To: Joe Ball WR/2

From: Will Wawrzyn WR/SEH

Subject: Water Resource Management Appraisals and Standards Reviews for the Kinnickinnic River Watershed

Attached please find copies of water resource Appraisals and Standards Review for the Kinnickinnic River Watershed. Stream classifications were originally developed for these waterbodies in 1984 as part of the bound report titled Kinnickinnic River Watershed - Volume 3 Potential Stream Uses. These stream classification were prepared as part of the Milwaukee River Basin - MMSD Service Area Standards Reviews. A bound folder of these reports is available in both the SED and central office library. Please append the original bound documents with these latest versions.

Only one stream classification has been revised since 1993<sup>84</sup> as a result of portions of the concrete invert being removed from the Wilson Park Creek channel. Changes are as follows:

1984, Kinnickinnic River Watershed - Volume 3 Potential Stream Uses  
Wilson Park Creek  
Marginal Use Class E per NR 102 and NR 104

1993, Appraisal and Standards Review  
Wilson Park Creek

1. All concrete lined and enclosed channel reaches shall be classified as Limited Aquatic Life
2. All earthen channel reaches located upstream and downstream of the I-94 overpass shall be classified as a Limited Forage Fish Community per NR 102 and NR 104.

I have not included any additional references (maps, photos or text) for the reports. References attached to the 1984 document have not changed.

Please call me if you feel additional information is needed or revisions are necessary.

c: Sharon Gayan WR/SEH  
Pat Trochell WR/2  
Kent Taylor WR/2



### **Wilson Park Creek**

Stream Classification: Limited Aquatic Life (all concrete lined and enclosed reaches)  
Limited Forage Fish Community (earthen channel reaches  
upstream and downstream of I-94 overpass and upstream of airport)

Limiting Factors: Water quality and quantity  
Loss of habitat  
Contaminated sediment (metals and PCBs)  
Aesthetics and recreational use  
Limited fish, aquatic life and wildlife communities

Sources: Urban nonpoint sources of pollution  
Channelization and enclosure  
Sanitary sewer overflows  
Chronic spills

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### **Cherokee Creek**

Stream Classification: Limited Aquatic Life

Limiting Factors: Water quality and quantity  
Loss of habitat  
Aesthetics and recreational use  
Limited fish, aquatic life and wildlife communities

Sources: Urban nonpoint sources of pollution  
Channelization and enclosure

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### **Kinnickinnic River and Estuary**

Stream Classification: Limited Aquatic Life (upstream of 6th St.)  
Warm Water Sport Fish Community (downstream of 6th St. to  
confluence with the Milwaukee River)

Limiting Factors: Water quality and quantity  
Loss of habitat  
Contaminated sediment  
Fish Consumption advisory  
Aesthetics and recreational use  
Limited fish, aquatic life and wildlife communities

Sources: Urban nonpoint sources of pollution  
Channelization and enclosure  
Sanitary sewer overflows  
Combined sewer overflows  
Chronic spills

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## Villa Mann Creek

Stream Classification: Limited Aquatic Life

Limiting Factors:                   Water quality and quantity  
  Loss of habitat  
  Aesthetics and recreational use  
  Limited fish, aquatic life and wildlife communities

Sources:                   Urban nonpoint sources of pollution  
  Channelization and enclosure

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While the biological use and recreational use is very limited for these waterbodies, consideration must be given to protecting and enhancing these uses in downstream reaches of the watershed and basin, specifically the Milwaukee Harbor Estuary and Lake Michigan. As such, the development of future water resource management objectives need to consider those already adopted or proposed for the Estuary and Lake Michigan.