

Date 6/26/2000

Facility Name NONE - NO SPECIFIC WPAES PERMITS

Receiving Water LYONS CREEK

Evaluated by W W Wawrzyn

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.

Other (please explain)

THERE ARE NO SPECIFIC WPAES WASTEWATER
DISCHARGES TO THIS STREAM. EXCLUDE FROM
NR 104 REVIEWS

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

Introduction

Lyons Park Creek is a small tributary of the Kinnickinnic River with a drainage area of 1.3 sq. miles. The stream originates in Sec. 14, T6N, R21E in the city of Greenfield and flows north for about 1.5 miles, draining high density residential areas. There are 3 sanitary sewer flow relief devices in the watershed, 8 storm sewer outfalls, and no known industrial discharges to the stream.

Habitat Evaluation

Immediately above the confluence with the Kinnickinnic River, the natural stream channel of Lyons Park Creek has been replaced by a concrete invert which extends upstream for 0.6 miles. Within this section there are two completely enclosed conduits and 9 drop structures. Above this concrete section the stream is channelized within an earthen channel and one additional enclosed conduit. There is no Q7,10 data available. Lyons Park Creek conveys primarily storm water runoff and at times there is little base flow in the stream with the exception of storm sewer discharging groundwater. Average width of the stream in the concrete channel is 1.5 feet and the average depth is 0.1 feet. Above the concrete channel the average width is 2 feet and the average depth is 0.2 feet. Substrates are primarily gravel, sand, and silt. Over bank flows and scouring of the bottom channel during storm events causes some bank erosion. Bank vegetation is dominated by grasses with some shrub and tree cover in Lyons Park. Habitat in the stream is rated poor using the Stream System Habitat Rating form due to channel modifications, inadequate depths, and urban nonpoint sources.

Biological

There is no biological data available for Lyons Park Creek. Any aquatic life would probably be limited to the areas above the concrete channel where the stream substrates are natural. These areas could possibly support very tolerant macroinvertebrates, but could not support fish populations due to de-graded habitat, insufficient stream flow and winter freeze-up. Upstream movement of fish from the Kinnickinnic River is limited by the drop structures and the concrete invert.

Water Quality

There is no chemical data available for Lyons Park Creek. Water quality is limited by urban nonpoint sources and possible discharges from sanitary sewer flow relief devices during storm events.

Conclusions and Recommendations

Habitat in Lyons Park Creek is severely limited by concrete channelization and insufficient flow and is unsuitable for most aquatic life. Water quality is limited by urban runoff and sanitary sewer discharges. Elimination of the sanitary flow relief devices and abatement of urban runoff would improve water quality in the Kinnickinnic River and estuary. Because Lyons Park Creek does not have the potential to support a viable fish population it is recommended that the stream be classified as a **Limited Aquatic Life** stream per NR 102 and NR 104 capable of supporting a limited and very tolerant macroinvertebrate community and an occasional fish.

References

- Ball, Joseph, 1982. Stream Classification Guidelines for Wisconsin. WDNR Technical Bulletin.
- SEWRPC. 1978. A Comprehensive Plan for the Kinnickinnic River Watershed. Planning Report No. 32.

CORRESPONDENCE/MEMORANDUM

Date: July 30, 1993

File Ref: 3200

To: Joe Ball WR/2

From: Will Wawrzyn WR/SEH

BUREAU OF
RESOURCES

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 1993⁸⁴ 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

South 43rd Street Ditch

Stream Classification: Limited Aquatic Life

Limiting Factors: Water quality
 Loss of habitat
 Contaminated sediment (metals)
 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

Holmes Avenue Creek

Stream Classification: Limited Aquatic Life

Limiting Factors: Water quality
 Loss of habitat
 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

Lyons Park 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
 Sanitary sewer overflows
 Chronic spills

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

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

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

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

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.