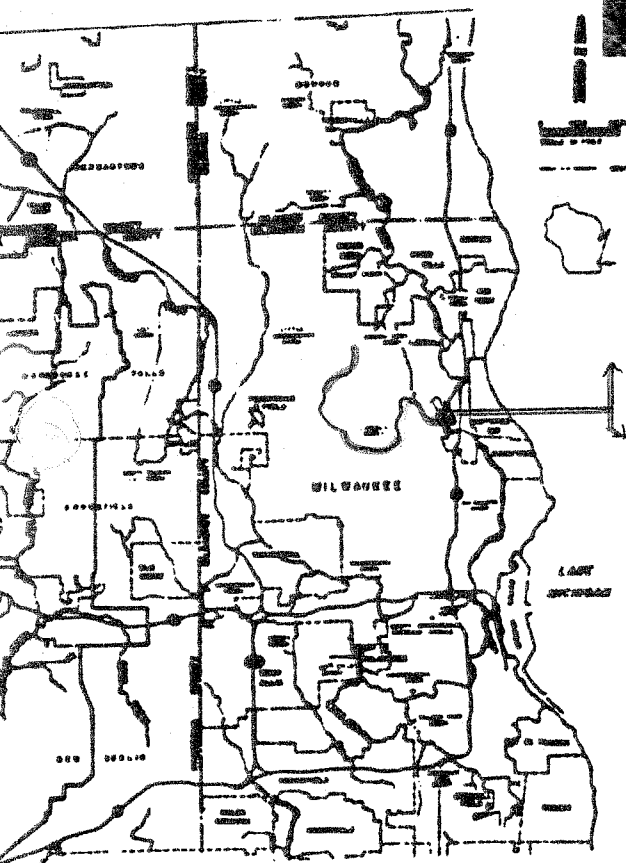


Looking upstream from 25th St.
from atop the same bank which
the previous picture was taken.
This photo shows the absence of
significant bank erosion and
increased bar formation along the
inside of the channel. This should
be compared to the previous photo
showing extensive erosion along
outside of the channel bend.

Milwaukee Co.

Date: 11/ /84



Lincoln Creek

Segment 1

Looking upstream from 27th St.
Start of a series of deep pool
and riffle/run complexes. This
This is one of the fish collection
areas.

Milwaukee Co.

Date: 11/ /84

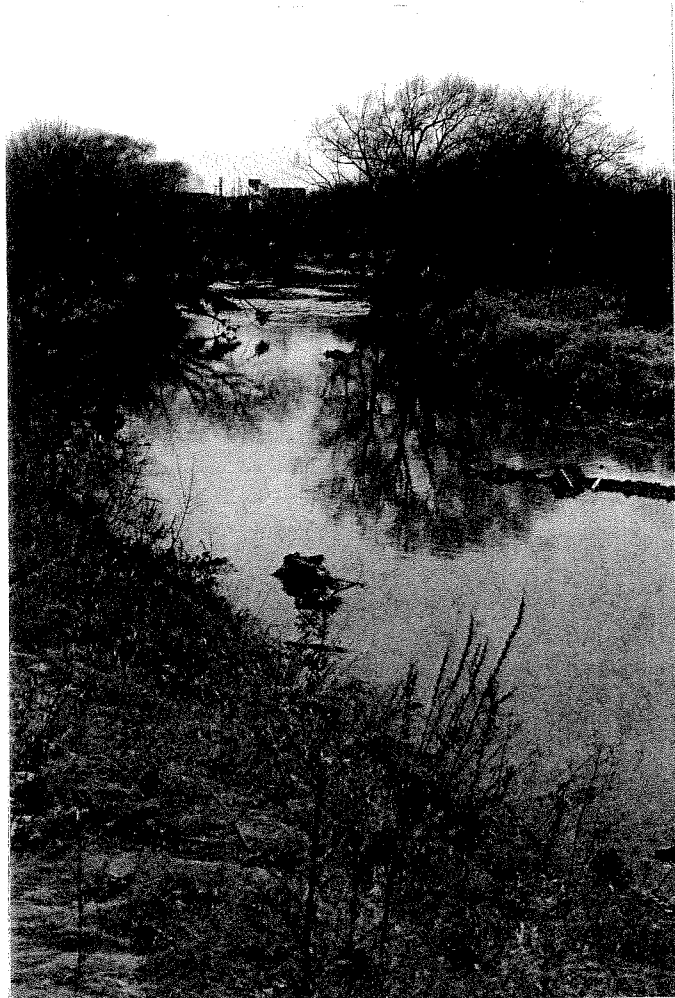




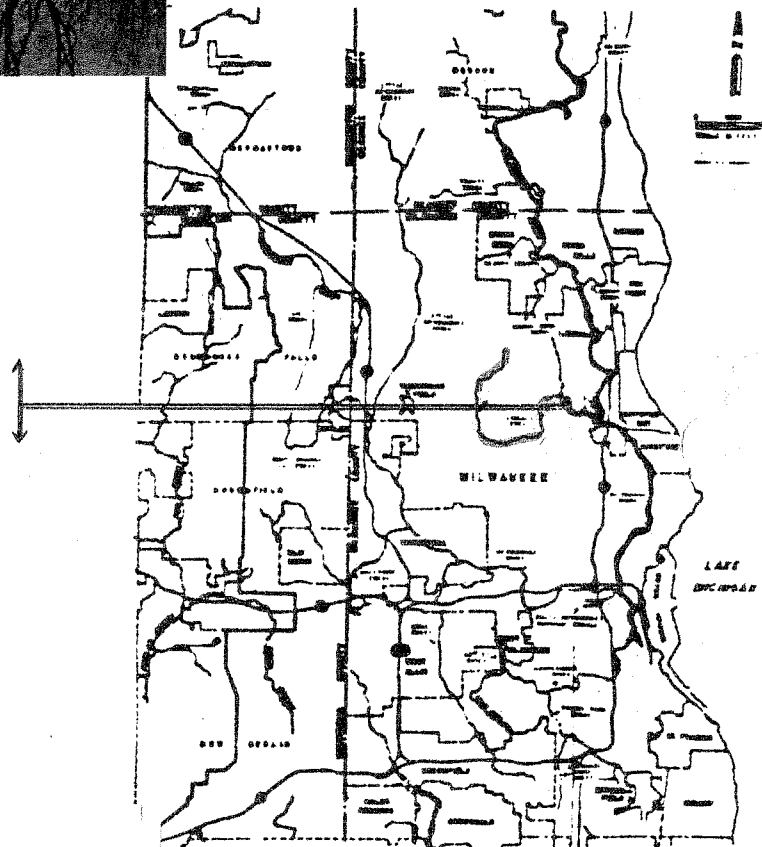
Photo taken at the same location as previous photo but following pool drawdown. Note extent of bank erosion and sedimentation. Sediments are frequently scoured and redeposited following runoff events.

Milwaukee Co.

Date: 11/ /84

Lincoln Creek

Segment 1



Looking upstream along left bank from 25th St. showing extent of bank erosion along outside bends of channel.

Milwaukee Co.

Date: 11/ /84



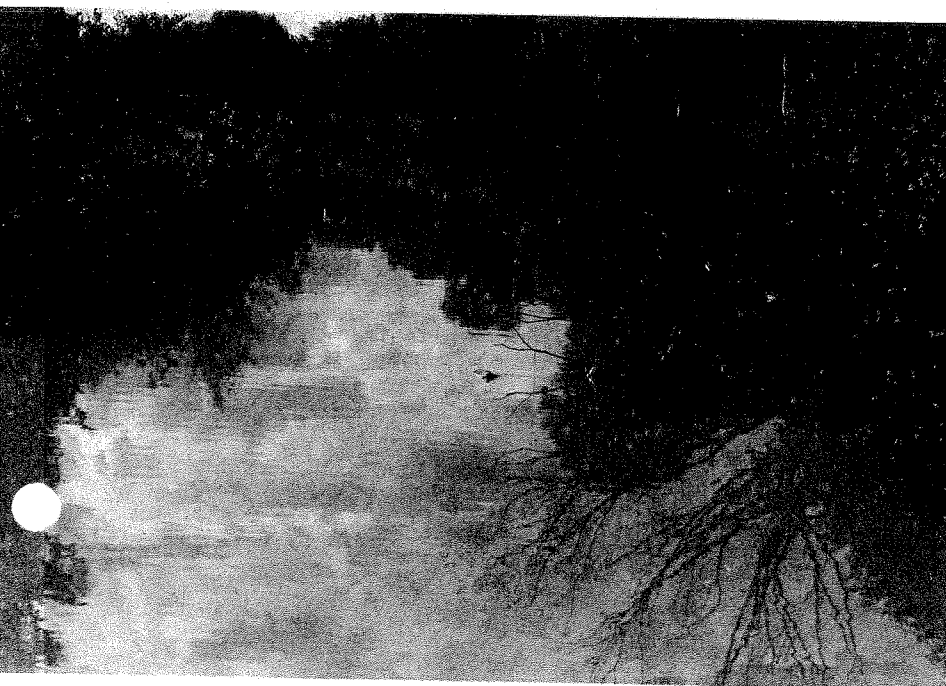
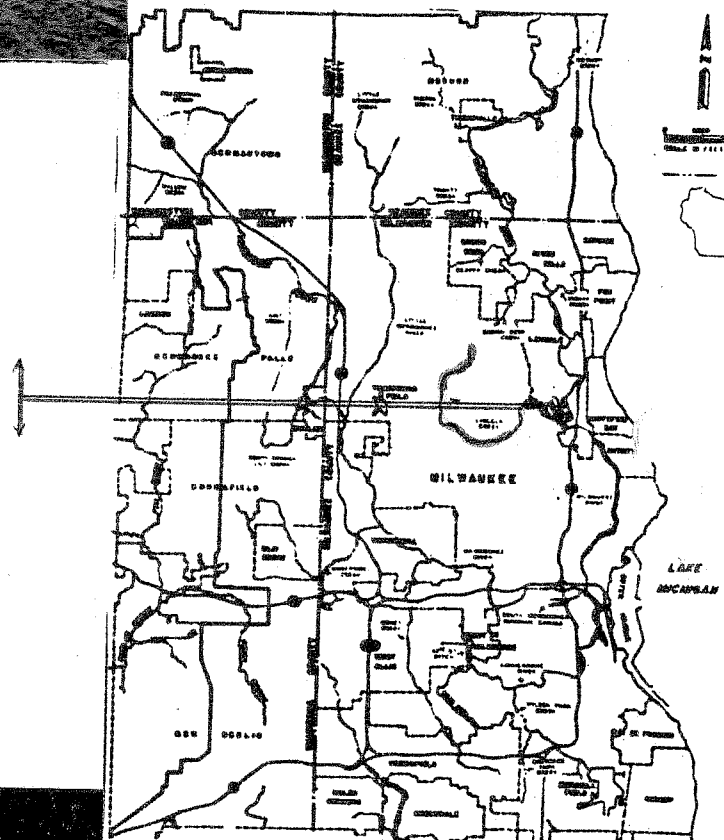
Looking upstream toward Villard Ave. bridge. Pool drawdown to 200' downstream. Maximum depth about 5', average 3'. Sedimentation and bar formation evident following pool drawdown. Fish collection site in 1975.

Milwaukee Co.

Date: 11/ /84

Lincoln Creek

Segment 1



Looking upstream from the pedestrian bridge across from St. Michels Hosp. near 23rd. St. Photo was taken when the pool was being maintained by the dam at Estabrook park. Notice extensive bar formation along inside of bend and erosion along outside of bend.

Milwaukee Co.

Date: 8/ /84



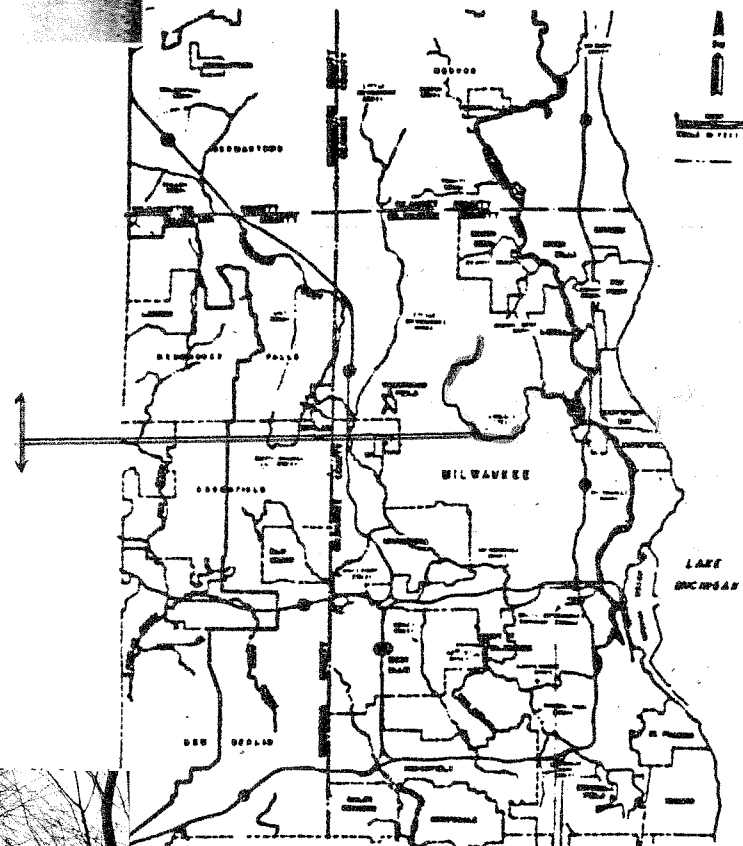
Looking downstream a short distance from Glendale Ave. bridge. Typical shallow riffle/run complex up to 2' in depth.

Milwaukee Co.

Date: 11/ /84

Lincoln Creek

Segment 3

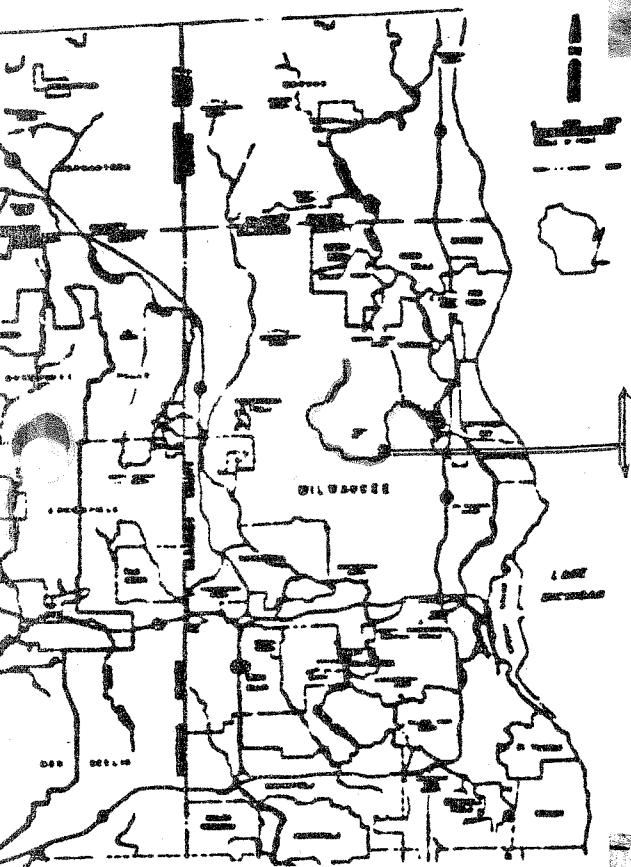
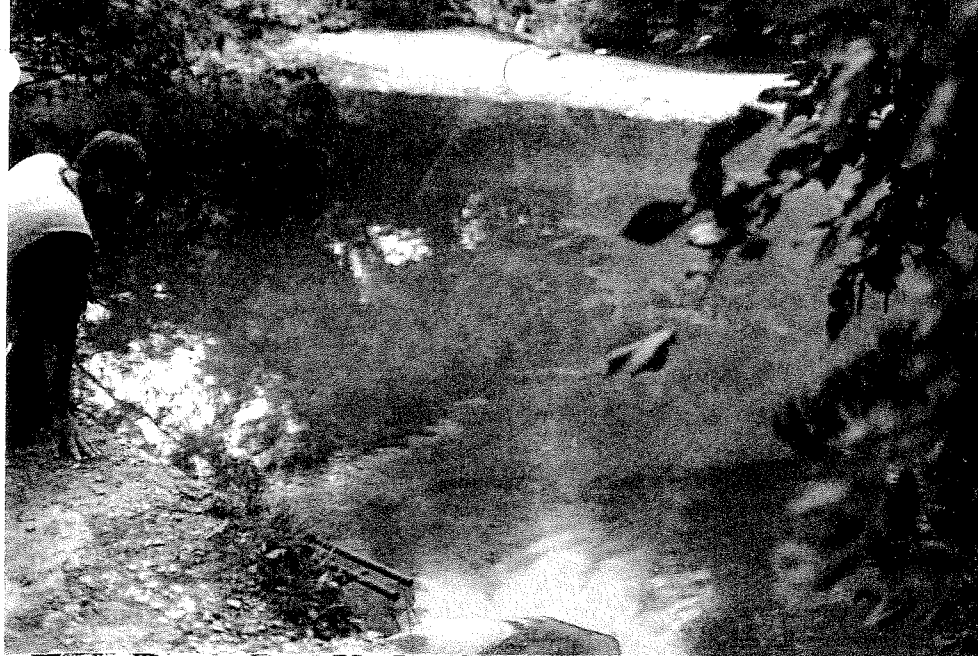


Looking upstream of Glendale Ave. bridge. As in previous photos, notice the extensive bar formation along the right bank up to 4' in height and a distance of 25' from masonry wall. Constriction of flow no doubt contributes to flooding problems upstream. Channel widths decrease from 40' to as little 15' upstream as a result of these deposits. Pool depth 3' or more.

Storm sewer outfall at 35th and Congress St. Note discoloration of water and floating oil sheen. These conditions are fairly prevalent.

Milwaukee Co.

Date: 7/ /84



Lincoln Creek

Segment 3

Looking downstream from a location between Glendale Ave. and 35th St. showing the masonry wall and dolomite outcropping. A short distance downstream is where the channel constricts to 15' as the result of sedimentation and bar formation.

Milwaukee Co.

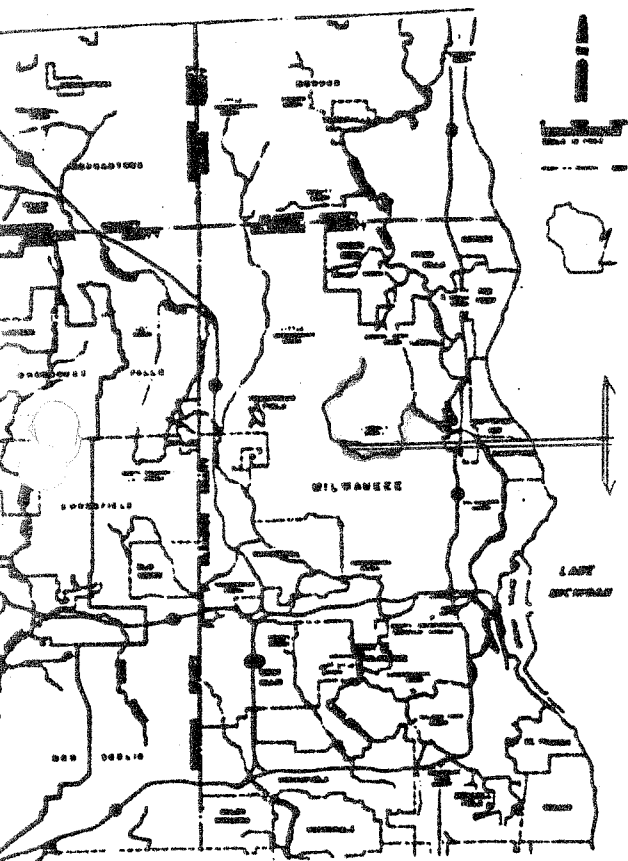
Date: 11/ /84



Looking upstream from 39th St.
This is typical of shallow run
/riffle segment. Banks are steep
and generally eroded.

Milwaukee Co.

Date: 11/ /84



Lincoln Creek

Segment 4

Looking upstream towards concrete
drop structure located at the top
of segment 4 near 47th St. This
site was included as a 1984 fish
collection site. Deep pool (5')
located immediately below the
drop structure. Generally a shal-
low, riffle and run segment.

Milwaukee Co.

Date: 11/ /84



PRELIMINARY LIST OF VASCULAR PLANTS, HAVENWOODS, MI WUKEE CO.

SCIENTIFIC NAME	COMMON NAME	FAMILY	SPECIAL STATUS	PAGE	FREQUENCY
				SPECIES MODALITY	
RANUNCULUS PENSYLVANICUS	HRISTLY BUTTERCUP	RANUNCULACEAE	NONE	REA	
RATIBIDA PINNATA	YELLOW CONEFLOWER	ASTERACEAE	NONE	PWM	
RHUS GLABRA	SMOOTH SUMAC	ANACARDIACEAE	NONE	PDM	
RHUS RADICANS	POISON IVY	ANACARDIACEAE	NONE	SN	
*ROBINIA PSEUDO-ACACIA	BLACK LOCUST	FABACEAE	NONE		
ROSA SP	WILD ROSE	RUSACEAE	NONE		
ROSA BLANDA	EARLY WILD ROSE	RUSACEAE	NONE		
ROSA CAROLINA	PASTURE ROSE	RUSACEAE	NONE	PDM	
RUBUS SPP	RASPBERRY, BLACKBERRY	RUSACEAE	NONE		
RUBUS OCCIDENTALIS	BLACK RASPBERRY	RUSACEAE	NONE	SOM	
*RUMEX CRISPUS	CURLY DOCK	POLYGONACEAE	NONE		
SALIX SP	WILLOW	SALICACEAE	NONE		
*SALIX BABYLONICA	WEeping WILLOW	SALICACEAE	NONE		
SALIX INTERIOR	SANDBAR WILLOW	SALICACEAE	NONE	DUN	
SAMBUCUS CANADENSIS	ELDERBERRY	CAPRIFOLIACEAE	NONE	SD	
*SAPONARIA OFFICINALIS	BOUNCING BET	CARYOPHYLLACEAE	NONE		
*SETARIA VIRIDIS	GREEN FOXTAIL	POACEAE	NONE		
*SILENE CUCUHALUS	BLADDER CAMPION	CARYOPHYLLACEAE	NONE		
SMILACINA RACEMOSA	FALSE SOLOMON'S SEAL	LILIACEAE	NONE	SD	
*SOLANUM DULCAMARA	NIGHTSHADE	SOLANACEAE	NONE		
SOLIDAGO ALTISSIMA	SEE S. CANADENSIS	ASTERACEAE	NONE		
SOLIDAGO CANADENSIS	TALL GOLDENROD	ASTERACEAE	NONE	AT	
SOLIDAGO GRAMINIFOLIA	GRASS-LEAVED GOLDENROD	ASTERACEAE	NONE	NS	
*SONCHUS ASPER	SPINY SOW THISTLE	ASTERACEAE	NONE		
STACHYS PALUSTRIS	WOUNDWORT	LAMIACEAE	NONE	SS	

SUMMARY INFORMATION

DATE RUN: 0 1-82

NUMBER OF PLANTS ON THIS LIST: 130

NUMBER OF NON-NATIVES/NATIVES: 58/ 72 PERCENT: 44.6

NUMBER OF ENDANGERED & THREATENED SPECIES(**): 0

COMMUNITY AFFINITIES(***)	LIST TOTAL	PERCENT OF LIST	PERCENT OF MODALS
(AT) ALDER THICKET	3	2.3	12.5
(BEA) LAKE BEACH	1	0.7	3.3
(BF) BOREAL FOREST	2	1.5	3.4
(BG) BRACKEN-GRASSLAND	3	2.3	12.5
(CG) CEDAR GLADE	1	0.7	4.5
(DUN) LAKE DUNE	1	0.7	4.5
(FN) FEN	1	0.7	2.6
(ND) NORTHERN DRY FOREST	1	0.7	5.3
(NDM) NORTHERN DRY-MESIC FOREST	2	1.5	11.1
(NM) NORTHERN MESIC FOREST	1	0.7	4.2
(NS) NORTHERN SEDGE MEADOW	1	0.7	3.7
(OD) OAK OPENING	2	1.5	22.2
(PD) DRY PRAIRIE	2	1.5	5.6
(PDM) DRY-MESIC PRAIRIE	6	4.6	20.7
(PM) MESIC PRAIRIE	3	2.3	8.1
(PW) WET PRAIRIE	1	0.7	4.2
(PWM) WET-MESIC PRAIRIE	3	2.3	7.1
(SC) SHRUB CARR	2	1.5	16.7
(SD) SOUTHERN DRY FOREST	5	3.8	17.2
(SDM) SOUTHERN DRY-MESIC FOREST	5	3.8	6.4
(SM) SOUTHERN MESIC FOREST	4	3.0	7.5
(SS) SOUTHERN SEDGE MEADOW	3	2.3	15.8
(SW) SOUTHERN WET FOREST	6	4.6	15.8
(SWM) SOUTHERN WET-MESIC FOREST	2	1.5	4.8

SOURCE OF LIST MASTER PLANT R. READ

LIST ABBREVIATIONS: * = NON-NATIVE

SUMMARY ABBREVIATIONS: (**) = PROTECTED UNDER ENDANGERED AND NONGAME SPECIES LAW
(CHAPTER 370, LAWS OF 1977); SEE ALSO NR27 FOR CURRENT LIST.(***) = SEE CURTIS, J.T. 1959. VEGETATION OF WISCONSIN.
U.S. PRESS, MADISON, FOR ELABORATION.

Table 4

WPDES Permitted Discharges in the Lincoln Creek Watershed, Milwaukee County.

AO Smith Corporation

Permit # 27278

Limits and Monitoring Requirements: 001 TSS 20 mg/l
O&G 15 mg/l

Fe

Flow est.

002 Flow est.
TSS 20 mg/l
O&G 15 mg/l
101 Flow est.
TSS 30/60 mg/l
O&G 25/50 mg/l

Comments: Chronic Fe discharges from abandoned acid pits. Combined cooling water discharge of 1.0 MGD of which 90% is noncontact cooling water. Violations of O&G and TSS have been frequent for 001. Metals recently dropped as part of monitoring requirements. Discharge to segment 3 via 35th St. storm sewer.

Aqua-Chem, Inc. North Plant #1

Permit # 27715

Limits and Monitoring Requirements: 001 Temp *

Flow est. Comments: Discharge to

segment 2 via the spill prone 32nd St. storm sewer. * Temperature limits dependent on discharge rates.

Culligan Water Conditioning of Milwaukee

Permit # 45560

Limits and Monitoring Requirements: 001 Flow est.
TSS 40 mg/l max.

Comments: Previous violations for TSS but remedial actions are being instituted.

4653P

Cutler-Hammer Group of Eaton Corp.
Permit # 36463
Limits and Monitoring Requirements: None
Comments: General permit for noncontact cooling water.

Henri's Food Products Co., Inc.
Permit # 44474
Limits and Monitoring Requirements: None
Comments: General permit for noncontact cooling water.

Hercules, Inc.
Permit # 40886
Limits and Monitoring Requirements: None
Comments: General permit for noncontact cooling water.

Inryco, Inc.
Permit # 37303
Limits and Monitoring Requirements: None
Comments: General noncontact cooling water discharge.

Interstate Drop Forge, Inc.
Permit # 39179
Limits and Monitoring Requirements: None
Comments: General permit for noncontact cooling water discharge.

Johnson Control-Globe Battery
Permit # 108
Limits and Monitoring Requirements: 001 Flow est.
Temp 89 F
Additive (name, quantity)

Comments: A general permit was recommended for this discharge as of 10/84. Aquatic nuisance control chemical and water treatment additives added to cooling water line and outside pond which overflows to Lincoln Creek tributary. Approximately 4,400 lb/yr of additives are added. Recommend that the same Aquatic Nuisance Control permits, and treatment requirements and controls be required as long as the potential for overflows to Lincoln Creek exist. No discharge reported during last reporting period.

4653P

Lakeside Bridge and Steel Co.

Permit # 44172

Limits and Monitoring Requirements: 001 Flow est.
Temp. 95 F
pH 6-9 su
O&G 15 mg/l

Comments: None

Milwaukee Plastics Inc.

Permit # 41751

Limits and Monitoring Requirements: 001 Flow est.
Temp. 120 F
pH 6-9 su
Additive lbs

Comments: Add Sodium Dinephylldithiocarbamate and Disodium Methylene to cooling water process.

North Milwaukee Lime and Cement

Permit # 22624

Limits and Monitoring Requirements: 001 Flow est.
TSS 30 mg/l
pH 6-9 su

Comments: No discharge since 1980 or earlier.

OMC Evinrude-FAC of Outboard Marine

Permit # 558

Limits and Monitoring Requirements: Outfalls 001-004
Flow est.
Temp. 89 F
O&G 15 mg/l

Comments: Total discharge averaging 1.0 MGD. Minor violations of O7G limits reported in the past.

Red Rock Plastics Corp.

Permit # 41246

Limits and Monitoring Requirements: 001 Temp. 90 F
Flow est.
O&G 10 mg/l

Comments: None

Stainless Foundry and Engineering, Inc.

Permit # 39837

Limits and Monitoring Requirements: Outfalls 002- 004
Flow est.
Temp. 120 F

Comments: Discharge to segment 3 via the spill prone 35th St. storm sewer.

4653P

Vaporized Coatings, Inc.

Permit # 41599

Limits and Monitoring Requirements: None

Comments: General permit for noncontact cooling water discharge. Discharge to segment 3 via the spill prone 35th St. storm sewer.

Wisconsin Bridge and Iron, Co.

Permit Revoked as of 12/77.

Wisconsin Cuneo Press, inc.

Permit # 40924

Limits and Monitoring Requirements: None

Comments: General permit for noncontact cooling water discharge.

Wright Metal Processors, Inc.

Permit # 38849

Limits and Monitoring Requirements: None

Comments: General permit for noncontact cooling water discharge.

4653P

Appendix 5

(Pictorial Presentation)

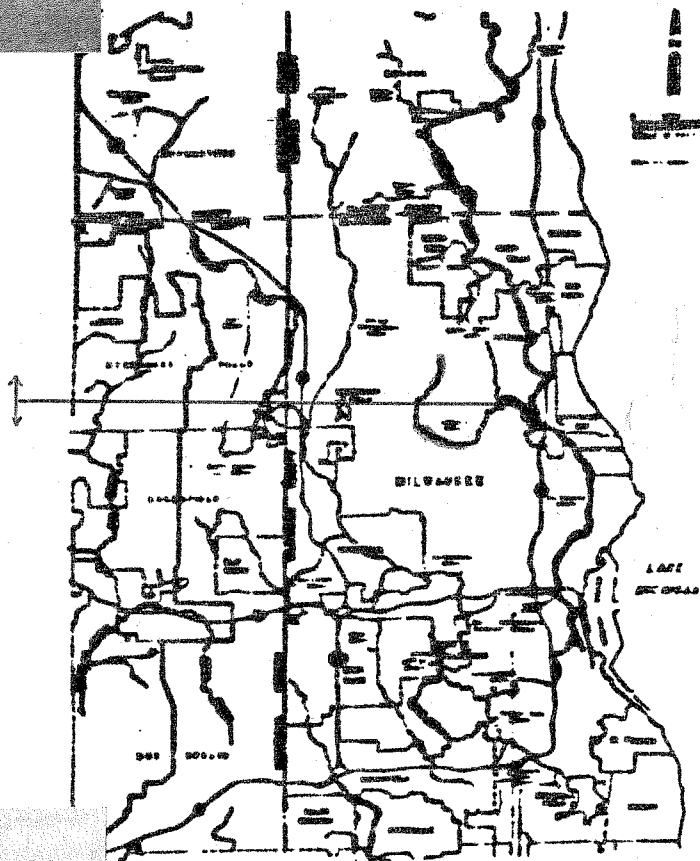


Looking downstream of Milwaukee River Parkway bridge. One of the Milwaukee river channels is in the background with a smaller Milwaukee river side channel and Lincoln Creek in the foreground. Sedimentation and bar formation evident along both banks. Pool formed by Estabrook park dam had been lowered earlier in September.

Milwaukee Co.

Date: 11/ /84

Lincoln Creek
Segment 1



Looking upstream of Milwaukee River Parkway bridge toward confluence of Lincoln Creek and Milwaukee River's western most channel. Sedimentation and bar formation evident along both banks up to 4 feet in height.

Milwaukee Co.

Date: 11/ 84