

Region NER County Calumet Report Date May 1990 Classification Recommended to be reclassified to WUWF and WWSF from CAL

Water Body: Pine Creek and Jordan Creek

Discharger: Teumseh Products

**If stream is classified as Limited Forage Fish (LFF) or Limited Aquatic Life (LAL), check any of the following Use Attainability Analysis factors that are identified in the classification report:**

- Naturally occurring pollutant concentrations prevent the attainment of use
- Jordan Creek only  
Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met
- Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place
- Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or operate such modification in a way that would result in the attainment of the use
- Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses
- Controls more stringent than those required by sections 301(b) and 306 of the Act would result in substantial and widespread economic and social impact

**Supporting Evidence in the report (include comments on how complete/thorough data is)**

- Biological Data (fish/invert) Biotic Index was calculated for several sites. Examined fish, macroinvertebrates, macrophytes and algae. Good. (3 sites on Pine Creek, 2 sites on Jordan Creek).
- Chemical Data (temp, D.O., etc.) pH, D.O. measured at each site.
- Physical Data (flow, depth, etc.) Width, depth, and flow measured at each site.
- Habitat Description Habitat rating forms were completed.
- Site Description/Map Map.
- Other: \_\_\_\_\_

**Historical Reports in file:**

-1990 Triennial Standards Review for Pine Creek and Jordan Creek, 1p plus forms, 5 photos

**Additional Comments/How to improve report:**

The report indicates both Jordan Creek and Pine Creek may support a higher use designations. Since Jordan Creek's designation seems to be based partly on pollution, the Creek should be examined to see if these sources of pollution remain the same (of course these shouldn't affect attainable use).

Ph2 DB - upgrade delete -

NR 104.07 change

Triennial Standards Review  
Pine Creek - Jordan Creek  
May 1990

In early September 1989, Pine Creek and Jordan Creek in Calumet Co. were evaluated to determine if the classifications found in NR 104.07(2) Number 31 were still appropriate.

Three sites were selected on Pine Creek and two on Jordan Creek and are located on the attached map. At sites 1, 3, and 4; dissolved oxygen, temperature, flows, and biotic index samples were collected. This information is tabulated on the reverse of the Habitat Rating Forms which were completed at all five locations and are attached.

Jordan Creek is a tributary of Pine Creek. It flows northeasterly through the city of New Holstein, where it receives storm water drainage, a POTW discharge, and approximately 100,000 gpd of cooling water from Tecumseh Products. Until recently, 20,000-30,000 gpd of process water from Tecumseh was also discharged to the creek. This water has high BOD<sub>5</sub> values and failed both acute and chronic bioassay tests conducted in April 1989. It is now discharged to New Holstein's POTW under a 1-year trial agreement.

Although USGS has determined that Jordan Creek, above the POTW, ceases to flow under Q<sub>7</sub>10 conditions, a flow of .025 was measured on 9/7/89 during severe drought conditions.

Below CTH X at site number 1, numerous large minnows were observed as well as crayfish. The biotic index was 7.6, which indicates significant organic pollution. Observations on site would not support this designation. Just above site number 4, the creek flows through a barnyard, receiving a load of mixed agricultural waste. This loading, and at the time, the discharge from Tecumseh contribute to a low dissolved oxygen reading of 3.3 ppm at site number 4. This impact was still observable although not significant at site number 5.

Habitat and flows at site number 4, are conducive to this stream supporting a healthy aquatic population, but point and non-point source pollution prevent it from achieving its full potential.

Pine Creek receives no noticeable NPS, no point source discharges, and appears to be a well-buffered healthy stream throughout its length. Because it maintains cool temperatures and adequate flows year round, Fisheries Management suspected that it might support trout. It was electro-fished in 1977 and that suspicion was not confirmed, but conditions remain supportive of that possible use. Biotic index work from station 3 indicate "very good" water quality and flows are ample.

Information collected during this survey indicates a higher quality resource in Pine Creek and a higher potential in Jordan Creek than their current classifications suggest.

IT is recommended that the tributary from Tecumseh Products to Jordan Creek retain its present classification, but Jordan Creek itself be changed to Perpetually Wet Warm Water Forage. Pine Creek from its origin to Charlesburg Rd. (Meggers Rd.) should be classified as Continuous Warm Water Forage. From Charlesburg Rd. downstream to Hayton Pond, it should be Continuous Warm Water Sport Fish.

Tim Doelger



Stream PINE CR Reach Location TECUMSEH RD (3) Reach Score/Rating 144/FAIR  
 County CALUMET Date 9/7/89 Evaluator Doyle Classification \_\_\_\_\_

Rating Item	Category			
	Excellent	Good	Fair	Poor
Watershed Erosion	No evidence of significant erosion. Stable forest or grass land. Little potential for future erosion. (8)	Some erosion evident. No significant "raw" areas. Good land mgmt. practices in area. Low potential for significant erosion. 10	Moderate erosion evident. Erosion from heavy storm events obvious. Some "raw" areas. Potential for significant erosion. 14	Heavy erosion evident. Probable erosion from any run off. 16
Watershed Nonpoint Source	No evidence of significant source. Little potential for future problem. 8	Some potential sources (roads, urban area, farm fields). (10)	Moderate sources (small wetlands, tile fields, urban area, intense agriculture). 14	Obvious sources (major wetland drainage, high use urban or industrial area, feed lots, impoundment). 16
Bank Erosion, Failure	No evidence of significant erosion or bank failure. Little potential for future problem. (4)	Infrequent, small areas, mostly healed over. Some potential in extreme floods. 8	Moderate frequency and size. Some "raw" spots. Erosion potential during high flow. 16	Many eroded areas. "Raw" areas frequent along straight sections and bends. 20
Bank Vegetative Protection	90% plant density. Diverse trees, shrubs, grass. Plants healthy with apparently good root system. (6)	70-90% density. Fewer plant species. A few barren or thin areas. Vegetation appears generally healthy. 9	50-70% density. Dominated by grass, sparse trees and shrubs. Plant types and conditions suggest poorer soil binding. 15	<50% density. Many raw areas. Thin grass, few if any trees and shrubs. 18
Lower Bank Channel Capacity	Ample for present peak flow plus some increase. Peak flow contained. W/D ratio <7. (8)	Adequate. Overbank flows rare. W/D ratio 8-15. 10	Barely contains present peaks. Occasional overbank flow. W/D ratio 15-25. 14	Inadequate, overbank flow common. W/D ratio >25. 16
Lower Bank Deposition	Little or no enlargement of channel or point bars. 6	Some new increase in bar formation, mostly from coarse gravel. (9)	Moderate deposition of new gravel and coarse sand on old and some new bars. 15	Heavy deposits of fine material, increased bar development. 18
Bottom Scouring and Deposition	Less than 5% of the bottom affected by scouring and deposition. 4	5-30% affected. Scour at constrictions and where grades steepen. Some deposition in pools. (8)	30-50% affected. Deposits and scour at obstructions, constrictions and bends. Some filling of pools. 16	More than 50% of the bottom changing nearly year long. Pools almost absent due to deposition. 20
Bottom Substrate/ Available Cover	Greater than 50% rubble, gravel or other stable habitat. 2	30-50% rubble, gravel or other stable habitat. Adequate habitat. (7)	10-30% rubble, gravel or other stable habitat. Habitat availability less than desirable. 17	Less than 10% rubble gravel or other stable habitat. Lack of habitat is obvious. 22
Avg. Depth Riffles and Runs	Cold >1' 0 Warm >1.5' 0	6" to 1' 6 10" to 1.5' 6	3" to 6" 18 6" to 10" (18)	<3" 24 <6" 24
Avg. Depth of Pools	Cold >4' 0 Warm >5' 0	3' to 4' 6 4' to 5' 6	2' to 3' 18 3' to 4' 18	<2' 24 <3' (23)
Flow, at Rep. Low Flow	Cold >2 cfs 0 Warm >5 cfs 0	1-2 cfs 6 2-5 cfs 6	.5-1 cfs 18 1-2 cfs 18	<.5 cfs 24 <1 cfs (24)
Pool/Riffle, Run/Bend Ratio (distance between riffles ÷ stream width)	5-7. Variety of habitat. Deep riffles and pools. 4	7-15. Adequate depth in pools and riffles. Bends provide habitat. (8)	15-25. Occasional riffle or bend. Bottom contours provide some habitat. 16	>25. Essentially a straight stream. Generally all flat water or shallow riffle. Poor habitat. 20
Aesthetics	Wilderness characteristics, outstanding natural beauty. Usually wooded or un-pastured corridor. 8	High natural beauty. Trees, historic site. Some development may be visible. (10)	Common setting, not offensive. Developed but uncluttered area. 14	Stream does not enhance aesthetics. Condition of stream is offensive. 16

Column Totals: 26 52 18 48

Column Scores E 26 +G 52 +F 18 +P 48 = 144 = Score

<70 = Excellent, 71-129 = Good, 130-200 = Fair, >200 = Poor

FIELD MEASUREMENTS

D.O. 11.2 TEMP 17.5 pH      AVG WIDTH 10'  
AVG DEPTH 6" FLOW MEAS. 893 LENGTH OF SEGMENT     

OBSERVATIONS SCARCE (S), COMMON (C), ABUNDANT (A)

SLUDGE S MUD S MACROPHYTES S SLIMES S  
FILAMENTOUS ALGAE S LITTER & DETRITUS S  
PLANKTONIC ALGAE S IRON BACTERIA S TURBIDITY S  
COMMENTS:

EXTERNAL IMPACTS SEVERE (S), MODERATE (M), LIGHT (L)

AGRICULTURAL L CHANNELIZATION L CONSTRUCTION L  
STORM SEWERS L POINT SOURCES L  
COMMENTS:

BIOTA HBI FBI OTHER

MACROINVERTEBRATES 4.34     

FISH OBSERVED CHUBS

WILDLIFE USES

WATER CHEMISTRY

BOD5      TOT P      CHLORIDE      LEAD      MFFC       
DISS P      CADMIUM      MAGNESIUM      HARDNESS       
MFFS      TOT D N      CALCIUM      MANGANESE       
COPPER      NH3N      NICKLE      SUSP SOLIDS       
NO2-N+NO3-N      ZINC      IRON     

CLASSIFICATION

GREAT LAKES COMMUNITY      WARM WATER FORAGE       
COLD WATER COMMUNITY      LIMITED FORAGE FISH       
WARM WATER SPORT FISH      LIMITED AQUATIC LIFE

Stream JORDAN Reach Location CHARLESBURG RD (4) Reach Score/Rating 169/FAIR  
 County CALUMMET Date \_\_\_\_\_ Evaluator DOLZEL Classification \_\_\_\_\_

Rating Item	Category			
	Excellent	Good	Fair	Poor
Watershed Erosion	No evidence of significant erosion. Stable forest or grass land. Little potential for future erosion. 8	Some erosion evident. No significant "raw" areas. Good land mgmt. practices in area. Low potential for significant erosion. 10	Moderate erosion evident. Erosion from heavy storm events obvious. Some "raw" areas. Potential for significant erosion. (14)	Heavy erosion evident. Probable erosion from any run off. 16
Watershed Nonpoint Source	No evidence of significant source. Little potential for future problem. 8	Some potential sources (roads, urban area, farm fields). 10	Moderate sources (small wetlands, tile fields, urban area, intense agriculture). 14	Obvious sources (major wetland drainage, high use urban or industrial areas, feed lots, impoundment). (16)
Bank Erosion, Failure	No evidence of significant erosion or bank failure. Little potential for future problem. 4	Infrequent, small areas, mostly healed over. Some potential in extreme floods. (8)	Moderate frequency and size. Some "raw" spots. Erosion potential during high flow. 16	Many eroded areas. "Raw" areas frequent along straight sections and bends. 20
Bank Vegetative Protection	90% plant density. Diverse trees, shrubs, grass. Plants healthy with apparently good root system. 6	70-90% density. Fewer plant species. A few barren or thin areas. Vegetation appears generally healthy. 9	50-70% density. Dominated by grass, sparse trees and shrubs. Plant types and conditions suggest poorer soil binding. (15)	<50% density. Many raw areas. Thin grass, few if any trees and shrubs. 18
Lower Bank Channel Capacity	Ample for present peak flow plus some increase. Peak flow contained. W/D ratio <7. 8	Adequate. Overbank flows rare. W/D ratio 8-15. (10)	Barely contains present peaks. Occasional overbank flow. W/D ratio 15-25. 14	Inadequate, overbank flow common. W/D ratio >25. 16
Lower Bank Deposition	Little or no enlargement of channel or point bars. 6	Some new increase in bar formation, mostly from coarse gravel. (9)	Moderate deposition of new gravel and coarse sand on old and some new bars. 15	Heavy deposits of fine material, increased bar development. 18
Bottom Scouring and Deposition	Less than 5% of the bottom affected by scouring and deposition. 4	5-30% affected. Scour at constrictions and where grades steepen. Some deposition in pools. (8)	30-50% affected. Deposits and scour at obstructions, constrictions and bends. Some filling of pools. 16	More than 50% of the bottom changing nearly year long. Pools almost absent due to deposition. 20
Bottom Substrate/ Available Cover	Greater than 50% rubble, gravel or other stable habitat. 2	30-50% rubble, gravel or other stable habitat. Adequate habitat. (7)	10-30% rubble, gravel or other stable habitat. Habitat availability less than desirable. 17	Less than 10% rubble gravel or other stable habitat. Lack of habitat is obvious. 22
Avg. Depth Riffles and Runs	Cold >1' 0 Warm >1.5' 0	6" to 1' 6 10" to 1.5' 6	3" to 6" 18 6" to 10" (18)	<3" 24 <6" 24
Avg. Depth of Pools	Cold >4' 0 Warm >5' 0	3' to 4' 6 4' to 5' 6	2' to 3' 18 3' to 4' 18	<2' 24 <3' (24)
Flow, at Rep. Low Flow	Cold >2 cfs 0 Warm >5 cfs 0	1-2 cfs 6 2-5 cfs 6	.5-1 cfs 18 1-2 cfs (18)	<.5 cfs 24 <1 cfs 24
Pool/Riffle, Run/Bend Ratio (distance between riffles ÷ stream width)	5-7. Variety of habitat. Deep riffles and pools. 4	7-15. Adequate depth in pools and riffles. Bends provide habitat. (8)	15-25. Occasional riffle or bend. Bottom contours provide some habitat. 16	>25. Essentially a straight stream. Generally all flat water or shallow riffle. Poor habitat. 20
Aesthetics	Wilderness characteristics, outstanding natural beauty. Usually wooded or un-pastured corridor. 8	High natural beauty. Trees, historic site. Some development may be visible. 10	Common setting, not offensive. Developed but uncluttered area. (14)	Stream does not enhance aesthetics. Condition of stream is offensive. 16

Column Totals: \_\_\_\_\_ 50 79 40

Column Scores E \_\_\_\_\_ +G 50 +F 79 +P 40 = 169 = Score

<70 = Excellent, 71-129 = Good, 130-200 = Fair, >200 = Poor

FIELD MEASUREMENTS

D.O. 3-3 TEMP 22 pH      AVG WIDTH 7'  
AVG DEPTH 5" FLOW MEAS 1.30 LENGTH OF SEGMENT     

OBSERVATIONS SCARCE (S), COMMON (C), ABUNDANT (A)  
SLUDGE 0 MUD 0 MACROPHYTES 0 SLIMES 0  
FILAMENTOUS ALGAE 0 LITTER & DETRITUS 0  
PLANKTONIC ALGAE 0 IRON BACTERIA 0 TURBIDITY 0  
COMMENTS:

*HABITAT, SUBSTRATE, FLOWS  
ALL GOOD, BUT AG NPS IS A  
PROBLEM*

EXTERNAL IMPACTS SEVERE (S), MODERATE (M), LIGHT (L)  
AGRICULTURAL S CHANNELIZATION M CONSTRUCTION L  
STORM SEWERS L POINT SOURCES S  
COMMENTS:

*1 FARM OR VERY SEVERE IMPACT  
TECUMSEH MAY BE AN IMPORTANT CONTRIBUTOR  
VILLAGE LOOKS GOOD*

BIOTA HBI FBI OTHER  
MACROINVERTEBRATES 5.57       
FISH OBSERVED NONE  
WILDLIFE USES

WATER CHEMISTRY

BOD5      TOT P      CHLORIDE      LEAD      MFFC       
DISS P      CADMIUM      MAGNESIUM      HARDNESS       
MFFS      TOT D N      CALCIUM      MANGANESE       
COPPER      NH3N      NICKLE      SUSP SOLIDS       
NO2-N+NO3-N      ZINC      IRON     

CLASSIFICATION

GREAT LAKES COMMUNITY      WARM WATER FORAGE       
COLD WATER COMMUNITY      LIMITED FORAGE FISH       
WARM WATER SPORT FISH      LIMITED AQUATIC LIFE

Stream PINE CR Reach Location 1ST CTH T XING (2) Reach Score/Rating 149/FAIR  
 County CALUMET Date \_\_\_\_\_ Evaluator DeB... Classification \_\_\_\_\_

Rating Item	Category			
	Excellent	Good	Fair	Poor
Watershed Erosion	No evidence of significant erosion. Stable forest or grass land. Little potential for future erosion. (8)	Some erosion evident. No significant "raw" areas. Good land mgmt. practices in area. Low potential for significant erosion. 10	Moderate erosion evident. Erosion from heavy storm events obvious. Some "raw" areas. Potential for significant erosion. 14	Heavy erosion evident. Probable erosion from any run off. 16
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Aesthetics	Wilderness characteristics, outstanding natural beauty. Usually wooded or un-pastured corridor. 8	<del>High natural beauty.</del> Trees, historic site. Some development may be visible. (10)	Common setting, not offensive. Developed but uncluttered area. 14	Stream does not enhance aesthetics. Condition of stream is offensive. 16
Column Totals:	<u>12</u>	<u>71</u>	<u>18</u>	<u>48</u>

Column Scores E 12 + G 71 + F 18 + P 48 = 149 = Score

FIELD MEASUREMENTS

D.O. \_\_\_\_\_ TEMP \_\_\_\_\_ PH \_\_\_\_\_ AVG WIDTH 6-7'  
AVG DEPTH 8-10" FLOW MEAS. 2 (EST) LENGTH OF SEGMENT \_\_\_\_\_

OBSERVATIONS SCARCE (S), COMMON (C), ABUNDANT (A)

SLUDGE S MUD S MACROPHYTES S SLIMES S  
FILAMENTOUS ALGAE S LITTER & DETRITUS S  
PLANKTONIC ALGAE S IRON BACTERIA S TURBIDITY S  
COMMENTS:

EXTERNAL IMPACTS SEVERE (S), MODERATE (M), LIGHT (L)

AGRICULTURAL L CHANNELIZATION L CONSTRUCTION L  
STORM SEWERS L POINT SOURCES L  
COMMENTS:

BIOTA HBI FBI OTHER

MACROINVERTEBRATES \_\_\_\_\_  
FISH OBSERVED CHUBS?  
WILDLIFE USES

WATER CHEMISTRY

BOD5 \_\_\_\_\_ TOT P \_\_\_\_\_ CHLORIDE \_\_\_\_\_ LEAD \_\_\_\_\_ MFFC \_\_\_\_\_  
DISS P \_\_\_\_\_ CADMIUM \_\_\_\_\_ MAGNESIUM \_\_\_\_\_ HARDNESS \_\_\_\_\_  
MFFS \_\_\_\_\_ TOT D N \_\_\_\_\_ CALCIUM \_\_\_\_\_ MANGANESE \_\_\_\_\_  
COPPER \_\_\_\_\_ NH3N \_\_\_\_\_ NICKLE \_\_\_\_\_ SUSP SOLIDS \_\_\_\_\_  
NO2-N+NO3-N \_\_\_\_\_ ZINC \_\_\_\_\_ IRON \_\_\_\_\_

CLASSIFICATION

GREAT LAKES COMMUNITY \_\_\_\_\_ WARM WATER FORAGE \_\_\_\_\_  
COLD WATER COMMUNITY \_\_\_\_\_ LIMITED FORAGE FISH \_\_\_\_\_  
WARM WATER SPORT FISH \_\_\_\_\_ LIMITED AQUATIC LIFE \_\_\_\_\_

Stream PINE CR Reach Location 2ND CHARLESBURG RD XING Reach Score/Rating Good<sup>+</sup> / 134  
 County CALUMET Date 9/7/89 Evaluator DOZICK Classification \_\_\_\_\_

Rating Item	Category			
	Excellent	Good	Fair	Poor
Watershed Erosion	No evidence of significant erosion. Stable forest or grass land. Little potential for future erosion. <u>8</u>	Some erosion evident. No significant "raw" areas. Good land mgmt. practices in area. Low potential for significant erosion. 10	Moderate erosion evident. Erosion from heavy storm events obvious. Some "raw" areas. Potential for significant erosion. 14	Heavy erosion evident. Probable erosion from any run off. 16
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Lower Bank Channel Capacity	Ample for present peak flow plus some increase. Peak flow contained. W/D ratio <7. 8	Adequate. Overbank flows rare. W/D ratio 8-15. <u>10</u>	Barely contains present peaks. Occasional overbank flow. W/D ratio 15-25. 14	Inadequate, overbank flow common. W/D ratio >25. 16
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Avg. Depth of Pools	Cold >4' 0 Warm >5' 0	3' to 4' 6 4' to 5' 6	2' to 3' 18 3' to 4' 18	<2' 24 <3' <u>24</u>
Flow, at Rep. Low Flow	Cold >2 cfs 0 Warm >5 cfs 0	1-2 cfs 6 2-5 cfs 6	.5-1 cfs <u>18</u> 1-2 cfs <u>18</u>	<.5 cfs 24 <1 cfs 24
Pool/Riffle, Run/Bend Ratio (distance between riffles ÷ stream width)	5-7. Variety of habitat. Deep riffles and pools. 4	7-15. Adequate depth in pools and riffles. Bends provide habitat. 8	15-25. Occasional riffle or bend. Bottom contours provide some habitat. <u>16</u>	>25. Essentially a straight stream. Generally all flat water or shallow riffle. Poor habitat. 20
Aesthetics	Wilderness characteristics, outstanding natural beauty. Usually wooded or un-pastured corridor. 8	High natural beauty. Trees, historic site. Some development may be visible. <u>10</u>	Common setting, not offensive. Developed but uncluttered area. 14	Stream does not enhance aesthetics. Condition of stream is offensive. 16

Column Totals: 18 44 48 24

Column Scores E 18 +G 44 +F 48 +P 24 = 134 = Score

<70 = Excellent, 71-129 = Good, 130-200 = Fair, >200 = Poor

FIELD MEASUREMENTS

D.O. 8.3 TEMP 19.5 pH \_\_\_\_\_ AVG WIDTH 10'  
AVG DEPTH 1' FLOW MEAS - LENGTH OF SEGMENT -

OBSERVATIONS SCARCE (S), COMMON (C), ABUNDANT (A)

SLUDGE S MUD S MACROPHYTES S SLIMES S  
FILAMENTOUS ALGAE S LITTER & DETRITUS S  
PLANKTONIC ALGAE S IRON BACTERIA S TURBIDITY S  
COMMENTS:

EXTERNAL IMPACTS SEVERE (S), MODERATE (M), LIGHT (L)

AGRICULTURAL M CHANNELIZATION L CONSTRUCTION L  
STORM SEWERS L POINT SOURCES M  
COMMENTS:

BIOTA HBI FBI OTHER  
MACROINVERTEBRATES \_\_\_\_\_  
FISH OBSERVED  
WILDLIFE USES

WATER CHEMISTRY

BOD5 \_\_\_\_\_ TOT P \_\_\_\_\_ CHLORIDE \_\_\_\_\_ LEAD \_\_\_\_\_ MFFC \_\_\_\_\_  
DISS P \_\_\_\_\_ CADMIUM \_\_\_\_\_ MAGNESIUM \_\_\_\_\_ HARDNESS \_\_\_\_\_  
MFFS \_\_\_\_\_ TOT D N \_\_\_\_\_ CALCIUM \_\_\_\_\_ MANGANESE \_\_\_\_\_  
COPPER \_\_\_\_\_ NH3N \_\_\_\_\_ NICKLE \_\_\_\_\_ SUSP SOLIDS \_\_\_\_\_  
NO2-N+NO3-N \_\_\_\_\_ ZINC \_\_\_\_\_ IRON \_\_\_\_\_

CLASSIFICATION

GREAT LAKES COMMUNITY \_\_\_\_\_ WARM WATER FORAGE \_\_\_\_\_  
COLD WATER COMMUNITY \_\_\_\_\_ LIMITED FORAGE FISH \_\_\_\_\_  
WARM WATER SPORT FISH \_\_\_\_\_ LIMITED AQUATIC LIFE \_\_\_\_\_

Stream JORDAN CR Reach Location WIS AVE/CTHX - ABOVE STP ① Reach Score/Rating 160/ FAIR  
 County CALUMET Date 9/7/89 Evaluator DJG/KW Classification \_\_\_\_\_

Rating Item	Category							
	Excellent	Good	Fair	Poor				
Watershed Erosion	No evidence of significant erosion. Stable forest or grass land. Little potential for future erosion. 8	Some erosion evident. No significant "raw" areas. Good land mgmt. practices in area. Low potential for significant erosion. ⑩	Moderate erosion evident. Erosion from heavy storm events obvious. Some "raw" areas. Potential for significant erosion. 14	Heavy erosion evident. Probable erosion from any run off. 16				
Watershed Nonpoint Source	No evidence of significant source. Little potential for future problem. 8	Some potential sources (roads, urban area, farm fields). 10	Moderate sources (small wetlands, tile fields, urban area, intense agriculture). ⑭	Obvious sources (major wetland drainage, high use urban or industrial area, feed lots, impoundment). 16				
Bank Erosion, Failure	No evidence of significant erosion or bank failure. Little potential for future problem. 4	Infrequent, small areas, mostly healed over. Some potential in extreme floods. ⑧	Moderate frequency and size. Some "raw" spots. Erosion potential during high flow. 16	Many eroded areas. "Raw" areas frequent along straight sections and bends. 20				
Bank Vegetative Protection	90% plant density. Diverse trees, shrubs, grass. Plants healthy with apparently good root system. 6	70-90% density. Fewer plant species. A few barren or thin areas. Vegetation appears generally healthy. ⑨	50-70% density. Dominated by grass, sparse trees and shrubs. Plant types and conditions suggest poorer soil binding. 15	<50% density. Many raw areas. Thin grass, few if any trees and shrubs. 18				
Lower Bank Channel Capacity	Ample for present peak flow plus some increase. Peak flow contained. W/D ratio <7. 8	Adequate. Overbank flows rare. W/D ratio 8-15. ⑩	Barely contains present peaks. Occasional overbank flow. W/D ratio 15-25. 14	Inadequate, overbank flow common. W/D ratio >25. 16				
Lower Bank Deposition	Little or no enlargement of channel or point bars. ⑥	Some new increase in bar formation, mostly from coarse gravel. 9	Moderate deposition of new gravel and coarse sand on old and some new bars. 15	Heavy deposits of fine material, increased bar development. 18				
Bottom Scouring and Deposition	Less than 5% of the bottom affected by scouring and deposition. 4	5-30% affected. Scour at constrictions and where grades steepen. Some deposition in pools. ⑧	30-50% affected. Deposits and scour at obstructions, constrictions and bends. Some filling of pools. 16	More than 50% of the bottom changing nearly year long. Pools almost absent due to deposition. 20				
Bottom Substrate/ Available Cover	Greater than 50% rubble, gravel or other stable habitat. 2	30-50% rubble, gravel or other stable habitat. Adequate habitat. ⑦	10-30% rubble, gravel or other stable habitat. Habitat availability less than desirable. 17	Less than 10% rubble gravel or other stable habitat. Lack of habitat is obvious. 22				
Avg. Depth Riffles and Runs	Cold >1'	0	6" to 1'	6	3" to 6"	18	<3"	24
	Warm >1.5'	0	10" to 1.5'	6	6" to 10"	⑮	<6"	24
Avg. Depth of Pools	Cold >4'	0	3' to 4'	6	2' to 3'	18	<2'	24
	Warm >5'	0	4' to 5'	6	3' to 4'	18	<3'	⑮
Flow, at Rep. Low Flow	Cold >2 cfs	0	1-2 cfs	6	.5-1 cfs	18	<.5 cfs	24
	Warm >5 cfs	0	2-5 cfs	6	1-2 cfs	18	<1 cfs	⑮
Pool/Riffle, Run/Bend Ratio (distance between riffles ÷ stream width)	5-7. Variety of habitat. Deep riffles and pools. 4	7-15. Adequate depth in pools and riffles. Bends provide habitat. ⑧	15-25. Occasional riffle or bend. Bottom contours provide some habitat. 16	>25. Essentially a straight stream. Generally all flat water or shallow riffle. Poor habitat. 20				
Aesthetics	Wilderness characteristics, outstanding natural beauty. Usually wooded or un-pastured corridor. 8	High natural beauty. Trees, historic site. Some development may be visible. 10	Common setting, not offensive. Developed but uncluttered area. ⑭	Stream does not enhance aesthetics. Condition of stream is offensive. 16				

Column Totals: 6 60 46 48

Column Scores E 6 +G 60 +F 46 +P 48 = 160 = Score

<70 = Excellent, 71-129 = Good, 130-200 = Fair, >200 = Poor

FIELD MEASUREMENTS

D.O. 12.4 TEMP 21 pH \_\_\_\_\_ AVG WIDTH 5-6'  
AVG DEPTH 6" FLOW MEAS. .025 LENGTH OF SEGMENT \_\_\_\_\_

OBSERVATIONS SCARCE (S), COMMON (C), ABUNDANT (A)

SLUDGE S MUD S MACROPHYTES S SLIMES S  
FILAMENTOUS ALGAE S LITTER & DETRITUS S  
PLANKTONIC ALGAE S IRON BACTERIA S TURBIDITY S  
COMMENTS:

EXTERNAL IMPACTS SEVERE (S), MODERATE (M), LIGHT (L)

AGRICULTURAL M CHANNELIZATION L CONSTRUCTION L  
STORM SEWERS M+ POINT SOURCES L  
COMMENTS:

BIOTA HBI FBI OTHER  
MACROINVERTEBRATES 7.6 \_\_\_\_\_  
FISH OBSERVED NUMEROUS CHUBS  
WILDLIFE USES

WATER CHEMISTRY

BOD5 \_\_\_\_\_ TOT P \_\_\_\_\_ CHLORIDE \_\_\_\_\_ LEAD \_\_\_\_\_ MFFC \_\_\_\_\_  
DISS P \_\_\_\_\_ CADMIUM \_\_\_\_\_ MAGNESIUM \_\_\_\_\_ HARDNESS \_\_\_\_\_  
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PINE CR.  
FIRST CTH T XING  
FACING DOWN



PINE CR.  
TECUMSEH RD.  
FACING UP



JORDAN CR.  
WISCONSIN AV.  
FACING UP



JORDAN CR.  
1ST CHARLESBURG RD. XING  
FACING DOWN



PINE CR.  
2ND CHARLESBURG RD. XING  
FACING UP

