

Region SCR **County** Dodge **Report Date** 10/1993 **Classification** LAL

Water Body: Rock River, Hidden Meadows Trib

Discharger: Hidden Meadows Mobile Home Park

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 in place?
- 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 Irretrievable cultural alterations
- 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 habitat
- 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)
- Chemical Data (temp, D.O., etc.)
- Physical Data (flow, depth, etc.)
- Habitat Description
- Site Description/Map
- Other: slides - photos

Historical Reports in file:

- 10/1993 - Richard Dreher / Mark Sasing
- 10/1976 - Tom Bainbridge

Additional Comments/How to improve report:

- Stream flow, habitat & cultural alterations limit flow (93)
- The trib could provide good cover for turtles, frogs, amphibians, etc -- is the LAL class'n still appropriate?
- is there more data available?
- check w/region on this class'n.

HIDDEN MEADOWS TRIBUTARY

TO THE ROCK RIVER

TRIENNIAL STANDARDS REVIEW

OCTOBER 1993

RICHARD DREHER / MARK SESING

SOUTHERN DISTRICT

BUREAU OF WATER RESOURCE MANAGEMENT
WISCONSIN DEPARTMENT OF NATURAL RESOURCES

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INTRODUCTION

After an on-site evaluation and review of information relating to stream habitat, water quality, and biology, it is recommended that the Hidden Meadows Tributary to the Rock River remain classified Limited Aquatic Life, LAL(f). Low natural stream flow, in-place pollutants, and irretrievable cultural alterations all contribute to the tributary not reaching it's full biological potential.

GENERAL DESCRIPTION, HABITAT, AND STREAM BIOLOGY

Hidden Meadows Tributary originates in southeastern Dodge County, flows approximately six miles, and joins with the Rock River in far northeastern Jefferson County (see map).

The width of the creek varies from less than 0.5 m to 1.5 m. The creek rarely exceeds 0.5 m deep, with most of it less than 0.2 m deep. The tributary is intermittent with many sections lacking flow. Severe ditching is obvious throughout most of the stream's course and limits available habitat for fish and other aquatic life. The tributary can't be considered more than a shallow ditch.

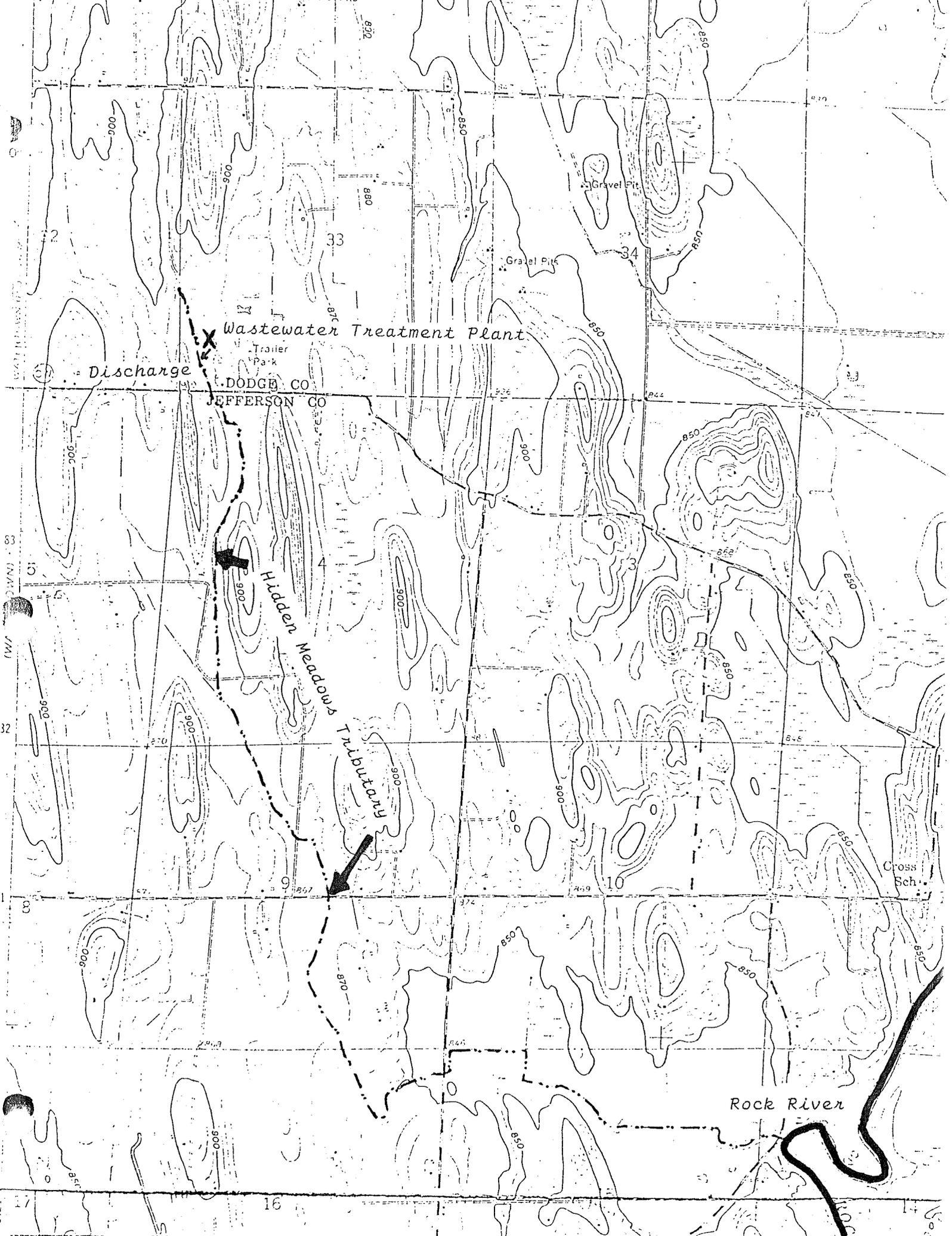
Most of the riparian land use is agricultural with some wetland areas. The tributary flows through Hidden Meadows Trailer Park where a small activated sludge plant is located to treat wastewater (photo 1). The plant uses tertiary filters with a granulated carbon media and has a continuous permitted discharge.

Instream vegetation and overhead bank cover are both lacking. Aquatic macrophytes are rare within the creek. Banks support monotypical wetland grasses (photo 2). There are very few woody or brushy areas providing overhead canopy. The creek also lacks instream cover such as brush, logs, or rocks which would help provide aquatic wildlife habitat.

The stream's substrate is characterized by a soft mud-muck bottom. There is a high degree of siltation with embeddedness near 100% throughout the tributary. Very few sand or gravel areas exist limiting the amount of riffled areas.

Stream flow severely limits any possibility for a classification upgrade. The low flow coupled with the lack of cover severely limits the fish life. The tributary can provide some good cover for turtles, frogs, and other amphibians.

Based on the obvious conditions and irretrievable cultural changes to the area and the tributary, it is recommended that the stream use classification remain Limited Aquatic Life, LAL(f).



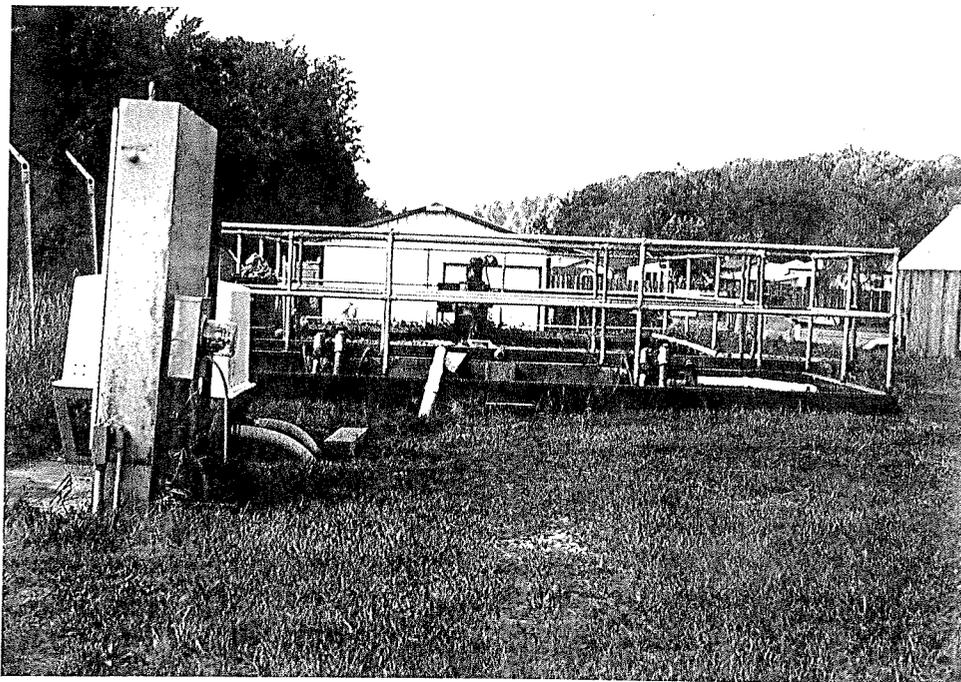


Photo 1 - Small activated sludge wastewater plant located near the headwaters of Hidden Meadows Tributary.



Photo 2 - Downstream from Hidden Meadows Wastewater Plant. Low flows, lack of canopy, and channelization all reduce the stream's potential.

Stream Hidden MEADOWS Reach Location Hidden Meadows Trailer Park Reach Score/Rating 238
 City Dodge Date 9/2/93 Evaluator JESING/Draher Classification POOR

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' 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: _____ = 71 _____ = 167

Column Scores E _____ + G _____ + F _____ + P _____ = 238 = Score

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

HIDDEN MEADOWS MHP

Dodge County

October 6, 1976

Rock River Tributary

Hidden Meadows discharges into the Rock River Tributary. This tributary is approximately six miles long and flows southeast from Dodge into Jefferson County and enters the Rock River at SW $\frac{1}{4}$, NW $\frac{1}{4}$, Section 14, T8N, R16E. It is an intermittent heavily ditched water course.

Recommendations

From the Hidden Meadows discharge and for the remainder of the Rock River tributary, the classification should be noncontinuous marginal surface waters.

The above recommendations represent a concurrence of opinion of the stream classification team who are as follows: Robert Weber, District Engineer; Jim Congdon, Area Fish Manager; Tom Bainbridge, Stream Classification Coordinator; Roger Schlessler, Natural Resources Technician.

Respectfully submitted,


Thomas Bainbridge
Stream Classification Coordinator

TB:cb



Gravel Pits

Gravel Pit

Gravel Pits

DODGE CO
JEFFERSON CO

Trailer Park

Cross Sch.

30'

83

82

81

17

16

14

32

33

34

35

4

10

11

9

866

888

818

847

839

826

844

847

900

900

900

900

850

850

900

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900

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900

900

850

850

850

863

846

840

170

14