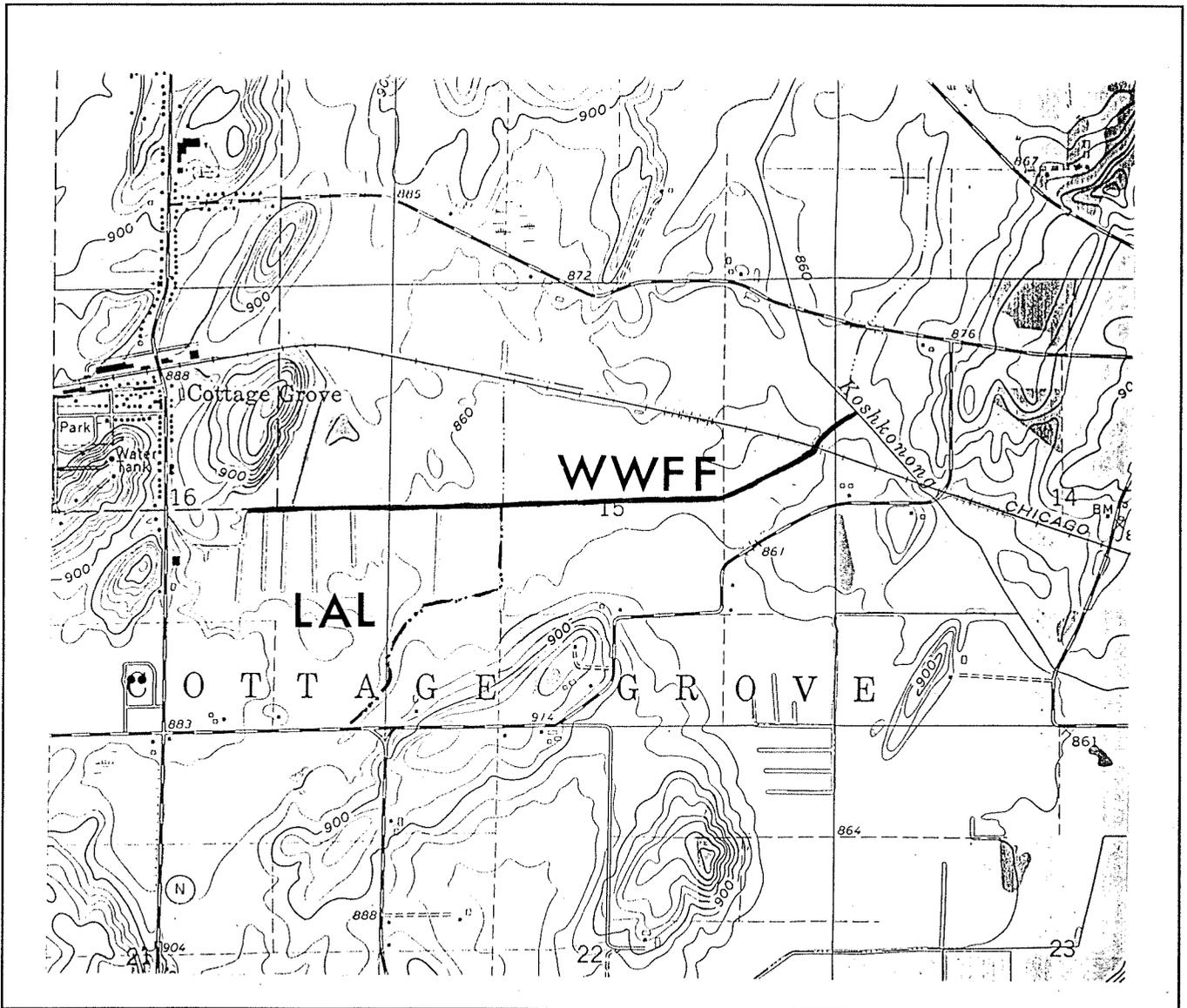


# USE CLASSIFICATION OF TWO UNNAMED TRIBUTARIES TO KOSHKONONG CREEK T7N-R11E, Sections 14, 15 & 16

Prepared by David Marshall  
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*Canex*

Stream Koshkonong Trib Reach Location T7N-R11E, Sec 14 & 15 Reach Score/Rating 241

County Dane Date 10-24-96 Evaluator Marshall Classification WWFF

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: \_\_\_\_\_

Column Scores E \_\_\_\_\_ +G \_\_\_\_\_ +F 73 +P 168 = 241 = Score

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

## UNNAMED TRIBUTARIES TO KOSHKONONG CREEK USE CLASSIFICATION

An agricultural drainage ditch arises in T.7N. - R.11E., Section 16 at Nora Road and flows approximately 0.7 mi. northeast to the confluence with another drainage ditch (listed as 14-7 in *Surface Water Resources of Dane County*). The first ditch is intermittent but often contains standing water within small pools. Drainage ditch 14-7 flows continuously but lacks good habitat that is characteristic to natural streams. Both ditches lack meanders, riffles and deeper pools found in natural streams and both contain heavy silt deposits.

In spite of the poor habitat conditions, the ditch 14-7 produced more fish than anticipated. The stream supported at least seven fish species based on only a very limited electrofishing survey. Only 60 feet of stream were sampled due to extremely deep sediment deposits. Although the stream channel was approximately 15' wide, mud flats were exposed across roughly two-thirds of the channel, leaving only about 4' of flowing water. The water depth averaged only 0.5 feet compared to sediment depths exceeding 2 feet.

*Surface Water Resources of Dane County* (1985) contains additional information on the unnamed stream listed as 14-7.

Length = 1.5 mi.	Gradient = 7 ft. / mi.	Fishery: forage
Sample results from October 7, 1981:		
Cond. = 987 uhmos/cm	Alkalinity = 342 mg/l	
Chloride = 22.5 mg/l	pH = 7.2	

Classification findings: From Nora Road downstream to the confluence with ditch 14-7, the intermittent agricultural drainage ditch is classified **LAL (Limited Aquatic Life)**. Ditch 14-7 is classified **WWFF (Warm Water Forage Fish)** the entire length.

## FISHERIES SURVEY

14-7 Trib. to Koshkonong Cr    October 24, 1996    Dane County    Basin 012

Confluence with intermittent ditch, Sec. 15, T7N-R11E.    60' (18.5 meters) sampled

Temp. = 8.5°C    Dissolved oxygen = 10.5 mg/l    Stream Classification Survey

Gear = AbP-3 battery powered backpack stream shocker and YSI Model 58 probe.

Species	Number
mudminnow <i>Umbra limi</i>	2
creekchub <i>Semotilus atromaculatus</i>	1
fathead minnow <i>Pimephale promelas</i>	7
buffalo (juv.) <i>Ictiobus</i> sp	17
brook stickleback <i>Culaea inconstans</i>	1
LMB (juv.) <i>Micropterus salmoides</i>	4
green sunfish <i>Lepomis cyanellus</i>	1
<b>TOTAL</b>	<b>33</b>

Estimated 267 individuals per 150 meters.

Stream flow data, October 24, 1996    (Swoffer Model 2100 meter)

Width (ft.)	Depth (ft.)	Velocity (fps)	CFS
1	.5	.56	.28
1	.7	.52	.36
1	.7	.54	.38
1	.3	.42	.13
4	.55 ave.	.51 ave.	1.15

Region SCR County Dane Report Date 10/1996 Classification LAL  
 Water Body: Koshkonong Creek Tribs  
 Discharger: ?Cenex?

**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
- 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)
- Chemical Data (temp, D.O., etc.)
- Physical Data (flow, depth, etc.)
- Habitat Description
- Site Description/Map
- Other: photos

**Historical Reports in file:**

10/28/96 - Dave Marshall

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

- LAL b/c of intermittent nature (and b/c effluent ditch?)

OK

Trib 14-7,  
East



West

