MINNESOTA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FISHERIES
TOWER AREA

River or Stream Survey Wyman Creek		**Initial Survey**	1968
Date(s) of Field Work	6/9 – 9/11/2003	**ReSurvey**	1981
Leader	Andy Levar, Dale Anderson		
Assistant(s)			

NAME, LOCATION AND FLOW CHARACTERISTICS

1	**Stream Name**	Wyman					
2	**Alternate Name(s)**	None					
3	**Tributary Number**	S-2-57-3					
4	**County(s)**	St. Louis					
5	**Watershed Name and Number**	St. Louis River, 3					
6	**Sequence of Waterways to Basin**	To Partridge River to St. Louis River to Lake Superior					
7	**Map(s) Used**	USGS Quad H21D, Allen, MN					
8	**Length of Stream**	9.4 miles		9	**Average Width**		
10	**Mouth Location**	**T.**	58N	**R.**	14W	**S**	4
11	**Flow at Mouth**	NI	**cfs**		**Date**		
12	**Average Flow at Gaging Station**	NA	**cfs**				
13	**Location of Gaging Station**	NA					
14	**Initial Source of Sustained Flow**	Swamp seepage and Area 5 SW pit overflow					
15	**Gradient**	17.3'/mile					
16	**Sinuosity**	1.7					

WATERSHED DESCRIPTION AND USE

17	Description of Watershed (Soil types, cover types, topography, land usage and ownership):
	Soil types are composed of sand, gravel and ledgerock. Cover types are primarily a mixture of coniferous and deciduous species. Willow and alder are common in the open areas. The upper half of the watershed is adjacent to LTV mine lands. Timber management is occurring throughout the watershed. Ownership is approximately 50% federal, 40% LTV mining, and 10% state.

GENERAL INFORMATION ON THE STREAM

18	Reason for Survey:	To provide current information on the status of fish populations in Wyman Creek.

19	Previous Investigations and Surveys:	Initial survey – 1968; ReSurvey – 1981; USFS Survey – 1989.

20	Special Problems or Conditions:	

21	Sources of Pollution:		
	Source	Loc. (mi. from mouth)	Substance discharged

22	Erosion:				
	Type	Degree (L,M,S)	Affected reach (mi. from mouth)	UTM Coordinates	
				Easting	Northing

23	Stream Alterations (dredging, channeling) – location & date:	

24	Dams and other obstructions (include beaver dams):								
	Type	GPS Reading		Head (ft)	Length (ft)	Type of Control Structure	Use	Fish Barrier	Owner	Condition or Status
		Easting	Northing							
	Beaver	566360	5264911	1.0	75			No		Inactive
	Beaver	567289	5265388	2.0	40			Yes		Active
	Beaver	567690	5266785	1.5	25			Yes		Active
	Beaver	569035	5268582	1.0	12			No		Inactive
	Beaver	569851	5269484	2.5	30			Yes		Active
	Beaver	570078	5270588	3.0	30			Yes		Active
	Beaver	569337	5271876	1.5	250			Yes		Active
	Beaver	569512	5272900	2.0	200			Yes		Active
	Beaver	569427	5271730	1.0	200			Yes		Active
	Beaver	569578	5271366	1.0	70			No		Inactive
	Beaver	570158	5269856	2.5	60			Yes		Active

25	Use of Water:		Fishing	X	Recreation	X	Commercial navigation	
	Power		Irrigation		Livestock watering		Other (specify) - Mine pit dewatering	X

26	Access (location and ownership):	AC1 – off Co. Rd. 666 on federal land near mile 0.8. AC2 – off FR 117 on federal land near mile 2.0.
27	Shoreline Developments:	Primarily between miles 5.5 and 7.0 as a result of previous mining operations.
28	Recreational Boating (give location and amount)	None

29	Tributaries and Springs															
Name	Tributary Number	Water Source	Bank (R or L)	Length Miles	Width at Mouth (feet)	Miles from Mouth	Flow (c.f.s.)	Stage (high, normal, low)	Temp °F				Time	Date	UTM Easting	UTM Northing
									Mouth		Source					
									Air	Water	Air	Water				
Unnamed	S-2-57-3-1	Swamp	R	1.6	0.5	0.8	0	low	65	46	-	-	1000	6/9/03	566895	5264921
Unnamed	S-2-57-3-2	Swamp	R	0.9	6.0	1.5	0.25	low	65	47	-	-	0900	6/9/03	567355	5265935
Unnamed	S-2-57-3-3	Area 2 pit	L	0.2	2.0	6.4	1.04	normal	60	65	-	-	1000	9/16/03	569466	5271436
Unnamed	S-2-57-3-4	Area 5 pit	R	0.3	2.0	7.1	NA*	normal	62	68	-	-	1100	9/16/03	569392	5272763

*Unmeasurable as it flowed through a wide beaver dam.

30	Stream Physical Characteristics				
a)	Station No.	1	2	3	4
b)	Date	9/8/03	9/8/03	9/8/03	9/11/03
c)	Loc. (mi. from mouth)	0.4	0.5	2.1	6.6
d)	Length of station	500'	500'	500'	240'
e)	% of station in:				
	Pools	100	10		
	Riffles and rapids		90		
	Runs			100	100
	Other (list)				
f)	Average width (ft.)	35	10.6	12.2	2.5
g)	Average depth (ft.)	1.7	0.3	0.4	1.0
h)	Flow (cfs)	NA	1.8	1.4	2.6
i)	High water mark (ft. above normal)	1.0	1.5	2.2	1.0
j)	Present stream stage	low	low	low	low
k)	Banks:				
	Height – avg./range		1.0'/0.5'-1.5'	1.0'/0.5'-1.5'	1.0'/0.5'-1.5'
	Erosion	lt.	lt.	lt.	lt.
	Ditched (%)	0	0	0	0
l)	Shade	lt.	mod.	lt.	lt.
m)	Pools:				
	Width – avg./range	35'/34'-37'	10'/5.7'-18.6'		
	Depth – avg./max.	1.7'/3.3'	0.4'/0.67'		
	Type (no. of each)				
	A				
	B				
	C				
	D	1	1		
	Bottom type (%)				
	Detritus	25			
	Sand		5		
	Gravel		10		
	Rubble		60		
	Boulder	5	25		
	Muck	70			
n)	Riffles and rapids:				
	Width – avg./range		16.5'/10'-18'		
	Depth – avg./max.		0.25'/0.4'		
	Max. vel. Range (ft/sec)		0.9		
	Bottom type (%) Sand		5		
	Gravel		20		
	Rubble		50		
	Boulder		25		
o)	Runs:				
	Width – avg./range			12.2'/5.5'-16'	2.5'/1.7'-3.7'
	Depth – avg./max.			0.4'/0.8'	1.0'/3.5'
	Max. vel. Range (ft/sec)			0.4	0.9
	Bottom type (%) Rubble			10	10
	Boulder			50	35
	Muck			40	35
	Gravel				10
	Detritus				10
p)	Other (describe):				
	Width – avg./range				
	Depth – avg./max.				
	Max. vel. Range (ft/sec)				
	Bottom type (%)				
	Data Pertaining to Similar Reach				
q)	Similar reach (mi. to mi.)	0 to 0.4	0.4 to 0.8	0.8 to 5.1	5.1 to 6.7
r)	Gradient of similar reach (ft./mi.)	2.5'/mi.	35.0'/mi.	13.0'/mi.	34'/mi.
s)	Sinuosity of similar reach	1.5	1.3	1.3	1.3
t)	Channel stability of similar reach	good	good	good	good

30	Stream Physical Characteristics (Continued)				
a)	Station No.	5	6	7	8
b)	Date	9/11/03			
c)	Loc. (mi. from mouth)	7.5			
d)	Length of station	100'			
e)	% of station in:				
	Pools				
	Riffles and rapids				
	Runs				
	Other (list)	100			
f)	Average width (ft.)	1.5'			
g)	Average depth (ft.)	0.4'			
h)	Flow (cfs)	NM*			
i)	High water mark	0.5'			
j)	Present stream stage	low			
k)	Banks:				
	Height – avg./range	0.25'/0-0.5'			
	Erosion				
	Ditched (%)				
l)	Shade	heavy			
m)	Pools:				
	Width – avg./range				
	Depth – avg./max.				
	Type (no. of each)				
	A				
	B				
	C				
	D				
	Bottom type (%)				
n)	Riffles and rapids:				
	Width – avg./range				
	Depth – avg./max.				
	Max. vel. Range (ft/sec)				
	Bottom type (%)				
o)	Runs:				
	Width – avg./range				
	Depth – avg./max.				
	Max. vel. Range (ft/sec)				
	Bottom type (%)				
p)	Other (describe):	Very small, shallow, soft bottom, stream often disappears underground			
	Width – avg./range	1.5'/1.2'-1.9'			
	Depth – avg./max.	0.4'/0.5'			
	Max. vel. Range (ft/sec)	-			
	Bottom type (%) Muck	50			
	Detritus	50			
	Data Pertaining to Similar Reach				
q)	Similar reach (mi. to mi.)	6.7 to 7.7			
r)	Gradient of similar reach (ft./mi.)	20'/mi.			
s)	Sinuosity of similar reach	1.1			
t)	Channel stability of similar reach	good			

*NM = not measurable, flow was too low to measure.

31	Characteristics of Water				
a)	Station No.	1	2	3	4
b)	Date	9/8/03	9/8/03	9/8/03	9/11/03
c)	Loc. (mi. from mouth)	0.4	0.5	2.1	6.6
d)	Length of station	500'	500'	500'	240'
e)	Time	0900	1230	1400	0900
f)	Air temp – F	70	70	70	65
g)	Water temp – F	77	64	63	63
h)	Color	cl. br.	cl. br.	cl. br.	cl. br.
i)	Cause of color	lt. bog stain	lt. bog stain	lt. bog stain	lt. bog stain
j)	Secchi disc (ft.)				
	FIELD DETERMINATIONS:				
	Dissolved oxygen (ppm)	6.5	7.5	7.3	7.2
	Free carbon dioxide (ppm)				
	FIELD DETERMINATIONS OR LABORATORY ANALYSIS (INDICATE BY F OR L):	F	F	F	F
	Total Alkalinity (ppm)	114	120	164	170
	Conductivity (micromhos/cm)	219	215	294	381
	PH	7.6	7.6	7.7	7.9
	LABORATORY ANALYSIS				
	Total Nitrogen (ppm)				
	NH3 (ppm)				
	NO2 (ppm)				
	NO3 (ppm)				
	Total Phosphorus (ppm)		.020	.018	.015
	Orthophosphates (ppm)				
	Sulfate Ion (ppm)				
	Chloride Ion (ppm)				
	B.O.D. (ppm)				
	Or C.O.D. (ppm)				
	Turbidity (JTU)				
	Total Dissolved Solids (ppm)		192	224	268
	Chlorophyll a (ppb)		1.7	2.0	3.5
	Conductivity (umhos)		260	303	409
	Total Alkalinity (ppm)		99	117	158
	PH		7.8	7.8	8.1

Remarks:	Station 1 was established after the lab water sampling.

31	Characteristics of Water (Continued)				
a)	Station No.	5	6	7	8
b)	Date	9/11/03			
c)	Loc. (mi. from mouth)	7.5			
d)	Length of station	100'			
e)	Time	1100			
f)	Air temp – F	65			
g)	Water temp – F	61			
h)	Color	clear			
i)	Cause of color	springs			
j)	Secchi disc (ft.)				
	FIELD DETERMINATIONS:				
	Dissolved oxygen (ppm)	6.0			
	Free carbon dioxide (ppm)				
	FIELD DETERMINATIONS OR LABORATORY ANALYSIS (INDICATE BY F OR L)				
	Total Alkalinity (ppm)				
	Conductivity (micromhos/cm)				
	PH				
	LABORATORY ANALYSIS				
	Total Nitrogen (ppm)				
	NH3 (ppm)				
	NO2 (ppm)				
	NO3 (ppm)				
	Total Phosphorus (ppm)	NA			
	Orthophosphates (ppm)				
	Sulfate Ion (ppm)				
	Chloride Ion (ppm)				
	B.O.D. (ppm)				
	Or C.O.D. (ppm)				
	Turbidity (JTU)				
	Total Dissolved Solids (ppm)	124			
	Chlorophyll a (ppb)	0.8			
	Conductivity (umhos)	170			
	Total Alkalinity (ppm)	55			
	PH	7.2			

Remarks:	Station 5 field measurements for water quality were not taken.
	Total phosphorus at Station 5 was below the lab detection level of 0.010 ppm.

32	Water Quality	
	Time	1000
	Wave Intensity	M
	Wind Direction	NW
	Color	C
	TDS	313
	Conductivity (umhos)	468
	Comments:	Overcast, light rain

Date: 8/1/2003

Temperature – Dissolved Oxygen Profile --- Area 5 SW Pit

Depth (ft.)	Temp. - ° c	D.O. - ppm
0	23.0	8.4
10	23.0	8.4
20	18.0	10.8
25	12.5	11.0
30	9.0	11.2
35	7.0	10.8
40	6.0	10.0
50	5.0	8.8
60	4.0	7.3
70	4.0	5.7
80	4.0	3.8
90	4.0	2.1
100	4.0	1.1

33	Biological Characteristics				
a)	**Station No.**	**1**	**2**	**3**	**4**
b)	**Date**	9/8/03	9/8/03	9/8/03	9/11/03
c)	**Loc. (mi. from mouth)**	0.4	0.5	2.1	6.6
d)	**Length of station**	500'	500'	500'	500'
e)	**Aquatic plants or filamentous algae Species:**	**Abundance**	**Abundance**	**Abundance**	**Abundance**
	Little Yellow Waterlily	R			
	Common Yellow Waterlily	C			
	Water Celery	R			
	Emergent Burreed Group	A		A	C
	Floating-leaf Burreed Group	A		C	
	Floating-leaf Pondweed	C			
	Wool Grass	C			
	Bladderwort Group	C			
	Robbins Pondweed	R			
	Swamp Five-finger	C		R	
	Filamentous Algae	C			
	River Pondweed	A			
	Grass Group	A	A	A	A
	Duck Millet	R			
	Narrow-leaf Pondweed Group	A			C
	Arrowhead Group	R			A
	Broad-leaved Cattail	R			R
	Swamp Horsetail	R			
	Needlerush	R			
	Flat-stem Pondweed	C			
	Hardstem Bulrush				A
	Muskgrass Group				C
	Spikerush				C
	Beggartick				A
f)	**Common invertebrates order or family:**				
	Plecoptera		C	C	R
	Anisoptera	A	A	C	A
	Zygoptera				R
	Orconectes	R		R	R
	Ephemenoptera	R	R		R
	Megaloptera				
	Pelecypoda				
	Trichoptera		C	R	R
	Chironomidge				
	Annelida				R
	Coleoptera	R			R
g)	**Distribution of aquatic plants:**				

Remarks:	Several crayfish were observed in Station 2.

33	Biological Characteristics				
a)	Station No.	5	6	7	8
b)	Date	9/11/03			
c)	Loc. (mi. from mouth)	7.5			
d)	Length of station	100'			
e)	Aquatic plants or filamentous algae Species:	Abundance	Abundance	Abundance	Abundance
	Water Starwort	C			
	Marsh Marigold	C			
	Filamentous Algae	R			
f)	Common invertebrates order or family:				
	Plecoptera				
	Anisoptera				
	Zygoptera				
	Orconectes				
	Ephemenoptera				
	Megaloptera				
	Pelecypoda				
	Trichoptera				
	Chironomidge				
	Annelida				
	Amphipoda				
g)	Distribution of aquatic plants:				

Remarks:	No invertebrates were sampled in Station 5.

34	Fishery Characteristics								
a)	Station No.	1		2		3		4	
b)	Date	9/9/03		9/9/03		9/9/03		9/11/03	
c)	Loc. (mi. from mouth)	0.4		0.5		2.1		6.6	
d)	Length of station	500'		500'		500'		500'	
e)	Gear	Backpack EF		Backpack EF		Backpack EF		Backpack EF	
f)	Amount of sampling effort	1089 seconds		1272 seconds		829 seconds		1110 seconds	
g)	Species Present	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)
	Yellow Perch	4							
	Johnny Darter	4		3					
	Slimy Sculpin	1		5					
	Common Shiner	2		2					
	Burbot			8					
	Blacknose Dace			10					
	Logperch			3					
	Pearl Dace					18			
	Fathead Minnow					90		11	
	White Sucker					2		1	
	Finescale Dace							12	
	Northern Redbelly Dace							1	
	Brook Stickleback							4	
h)	Gamefish young of year species:	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)
	Yellow Perch	6							
	Largemouth Bass	2							

Remarks:	The Burbot in EF2 ranged from 82 – 290 mm TL.

34	Fishery Characteristics								
a)	Station No.	5		6		7		8	
b)	Date								
c)	Loc. (mi. from mouth)								
d)	Length of station								
e)	Gear								
f)	Amount of sampling effort								
g)	Species Present	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)
h)	Gamefish young of year species:	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)

Remarks:	

37	**Escape Cover for Gamefish**	
	Similar Reach	**Type and Amount of Cover**
	1	IV-F
	2	OV-F; B-S; UB-S
	3	B-O; OV-O; IV-O; UB-S
	4	IV-F; OV-O; B-S; UB-S
	5	OV-F; IV-O

38	**Portions of Stream Suitable for Gamefish**	
	Species	**Suitable Reach (mi. to mi)**
	Yellow Perch, Largemouth Bass	Mile 0.0-0.4 – This reach is basically a wide channel forming an elongated mouth where Wyman Creek enters Colby Lake. It harbors fish moving in and out of Colby Lake.
	Brook Trout	Mile 0.4 – 0.8 – Fair
	Brook Trout	Mile 0.8 – 2.3 – Main branch – fair
	Brook Trout	Mile 0.8 – 2.6 – West fork – poor
	Brook Trout	Mile 2.3 – 7.7 -= Main branch and main stem upstream of main branch and west fork split – poor

39 History of Stream and Fish Conditions

a) Comparisons with past investigations and surveys:

Two previous fisheries investigations have been conducted on Wyman Creek, on 9/11/1968 and 8/25/1981. In addition, a stream habitat reconnaissance survey was done by the United States Forest Service in 1989. Stream bank accessibility brushing was done in 1979-80 just downstream of Forest Road 117.

The 1968 fisheries stream survey found the source of flow for Wyman creek to be springs originating in a swamp in S 11 T 59 R 14. The flow from this spring was less than 0.1 CFS and the flow of two tributaries (both located downstream of FR 117) contributed 0.0 and 0.3 CFS, however the flow of the remainder of the stream was 11-14 CFS. It is uncertain to this writer where the remaining flow came from. Stream temperatures were in the upper 40's to upper 50's F, but these temperatures were taken after the fall cool-down had begun. Electrofishing was done at five locations and captured white sucker, sculpins, darters, dace, and sticklebacks. One 10" brook trout was captured, at a station just downstream of Forest Road 117 that had been stocked with brook trout fingerlings and yearlings in 1965, 1967, and 1968. This survey classified Wyman Creek as a coldwater feeder (trout), but noted no natural reproduction was occurring and continuous stocking was necessary.

The 1981 fisheries stream survey found the flow in the originating spring not measurable and the flow from two tributaries (both downstream of FR 117) contributing 0.0 and 2.0 CFS, however the flow in the remainder of the stream was measured at 9-24 CFS. Again, to this writer it is uncertain where the remaining flow came from. Stream temperatures ranged from 58 F to 66 F with most of the stream in the low 60's F; however the summer temperature maximum had likely already passed. Orange iron precipitate was observed in several locations and was considered to be the result of mining activity in the upstream areas of the Wyman Creek watershed. Beaver dams were common along the entire stream. Total alkalinity increased from 103 ppm near the mouth to 137 in mining-impacted areas upstream. Electrofishing was done at five locations and captured dace, sticklebacks, sculpins, darters, and minnows at all stations upstream of the Colby Lake floodplain channel. Six brook trout ranging in size from 8.5" to 10" were captured, all at stations adjacent to road crossings at County 110 or USFS 117 where brook trout fingerlings and yearlings had been stocked annually. This survey classified various reaches of Wyman Creek as wild trout, semi-wild trout, or marginal trout.

Stream temperatures taken on 8/5/1983 found temperatures taken in four locations ranging from 72 F to 76 F. The weather had been hot and dry the preceding week.

A habitat reconnaissance survey was conducted by the USFS from 6/15/1989 through 7/6/1989. This survey examined stream conditions on the lower half of Wyman Creek, which lies within the Superior National Forest, from the mouth upstream through S 26 T 59 R 14. This survey found the lower half of Wyman Creek was choked with about 30 beaver dams (not including dams on the tributaries), with at least eight of the dams comprising barriers to fish movement. Extensive siltation and beaver cuttings in the stream were noted. Water temperatures in the portion of Wyman Creek, downstream of FR 117, were taken in June and ranged from 58 F to 70 F. Water temperatures in the mile of stream above FR 117 were taken in early July and ranged from 71 F through 74 F. The survey noted that temperatures in Wyman Creek somewhere well upstream of the survey area were taken and were about 2 F cooler than downstream. The survey also noted a tributary flow, not previously recorded, from a 3-7 acre mine pit upstream of the survey area.

In the early 1990's the National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) permit for LTV Steel was modified to allow pumping of water from several mine pits to the southwest of the Wyman Creek headwater spring into Wyman Creek with an average of 5 million gallons/day (7.7 CFS) and a maximum of 7.2 million gallons/day (11.1 CFS). LTV went out of operation in 2001 and these pits filled with water.

Sometime in the 1990's LTV created two mine pits immediately to the east of the Wyman Creek headwater spring. These pits, approximately 100 ft deep, have now filled with water. Surface overflow from these pits, along with overflow from the previously mentioned pits, are two relatively new tributaries to Wyman Creek.

Extensive logging occurred from the mid-1980's to the present in the downstream half of the Wyman Creek watershed, which is mostly in the Superior National Forest. Extensive logging is now occurring in the upstream half of the Wyman Creek watershed, which was purchased by Minnesota Power following the bankruptcy of LTV Steel and the shut down of mining operations in 2001.

The 2003 fisheries stream survey found no measurable flow from the original spring source. It is likely that flow to this spring was disrupted by nearby mining activity. Surface flow runoff from the mine pit lakes just to the east of the spring source could not be measured because it flowed through a wide beaver dam, but the flow at the next station downstream was 2.6 CFS when measured on 9/8/2003; it is assumed that most of this flow came from the mine pit lakes to the east. The flow from the next tributary downstream, from the mine pits to the west, was 1.04 CFS when measured on 9/16/2003. Another, natural, tributary just south of FS 117 had a flow of 0.25 CFS when measured on 6/9/2003. The last downstream tributary had no flow on 6/9/2003. The main stem flow in the lower portion of Wyman Creek was 1.8 CFS on 9/8/2003.

Recording thermometers were placed in ten locations along Wyman Creek and its tributaries in the summer of 2003. These thermometers showed that midsummer temperatures along the main stem of Wyman Creek spiked into the upper 70's F in mid-August. The temperatures in the two largest tributaries (surface runoff from mine pits to the east and west of the headwaters spring) were also in the upper 70's in mid-August. Temperatures in the original headwaters spring, in the spring tributary south of FR 117, and in the west branch of the split main stem were cooler, with summer maximums in the mid-to-upper 60's, but flows from these tributaries were minimal.

As in the 1981 survey, total alkalinity readings in 2003 progressively increased as one traveled upstream, from 114 ppm at the mouth, to 170 at mile 6.6 (between the two tributaries from the mine pits).

Electrofishing done in the 2003 stream survey showed fish species present were similar to previous investigations on this stream and typical of small warm water streams in the area. Trout stocking was discontinued in Wyman Creek after 1996 and no trout were captured while electrofishing in 2003. A few burbot captured in Station 2 (mile 0.5) were almost certainly upstream migrants from Colby Lake. Yellow perch and largemouth bass were found only in the channel to Colby Lake comprising the mouth of Wyman Creek. No other game fish were captured.

Eleven beaver dams, eight of which were barriers to fish movement, were observed along the main stem of Wyman Creek during the 2003 survey. This count does not include many beaver dams in tributaries or in several miles of the main stem which were inaccessible by foot due to swampy, brushy conditions.

b) History of fishing conditions:

According to the 1968 and 1981 stream surveys and the 1989 stream habitat survey, fishing pressure has been light and was negatively impacted by the numerous beaver dams. No trout appeared to be present in the stream in 2003, and there was likely no fishing pressure. Fishing pressure was probably always limited to the County Road 110 and Forest Road 117 stream crossings, as these were the places that trout were stocked and were the most accessible portions of the stream. According to the 1989 habitat survey, local residents reported warm water fish species from Colby Lake spawning in the lowest reach of Wyman Creek.

c) Records of past management:

Year	Species	Size	Number or Pounds
1955	BKT	no data	3,332
1965	BKT	FGL 976/lb	976
1967	BKT	FGL 130/lb	4,030
1967	BKT	YRL 8/lb	248
1968	BKT	FGL 130/lb	4,420
1968	BKT	YRL 8/lb	750
1970	BKT	FGL 370/lb	1,610
1970	BKT	YRL 15/lb	240
1971	BKT	FGL 152/lb	3,947
1971	BKT	YRL 7/lb	749
1972	BKT	FGL 33/lb	2,014
1972	BKT	YRL 7/lb	745
1973	BKT	YRL 6/lb	616
1974	BKT	FGL 45/lb	990
1975	BKT	YRL 4/lb	117
1975	BKT	YRL 6/lb	562
1976	BKT	YRL 7/lb	560
1977	BKT	FGL 35/lb	770
1977	BKT	YRL 6/lb	780
1978	BKT	FGL 46/lb	736
1978	BKT	YRL 7/lb	770
1979	BKT	FGL 29/lb	749
1979	BKT	YRL 6/lb	808

1980	BKT	YRL	4/lb	800
1981	BKT	FGL	20/lb	749
1981	BKT	YRL	3/lb	799
1982	BKT	FGL	21/lb	763
1982	BKT	YRL	3/lb	798
1983	BKT-MNE	FGL	23/lb	742
1984	BKT-WIS	FGL	16/lb	747
1984	BKT-MNE	YRL	4/lb	800
1985	BKT-WIS	FGL	12/lb	750
1986	BKT-OHI	FGL	15/lb	803
1988	BKT-OHI	FGL	26/lb	760
1989	BKT-PRO	FGL	20/lb	760
1990	BKT-OHI	YRL	7/lb	380
1991	BKT-OHI	YRL	9/lb	369
1992	BKT-OHI	YRL	7/lb	374
1993	BKT-OHI	YRL	5/lb	375
1994	BKT-OHI	YRL	5/lb	383
1994	BKT-SCF	YRL	2/lb	221
1996	BKT-SCF	YRL	4/lb	374

Rough fish removal:

Year	Species		Number or Pounds

Special regulations:

Habitat Improvement:

Year Installed	Type and Amount	Location (mi. to mi.)	Cost	Present Condition
1979-1980	Angler access brushing along streambank	1.5 – 2.0		Poor

40 Discussion of Fishery:

a) General characteristics

Wyman Creek supported a put-and-take brook trout fishery near the two areas that trout were stocked, at the County Road 110 and Forest Road 117 stream crossings. The sizes of trout captured during electrofishing in 1968 and 1981 were small, the largest being 10". Fishing pressure was considered to be light. Numerous beaver dams restricted trout movement and warm summer temperatures likely limited trout survival and growth.

b) Fish Management Problems:

Warm summer water temperatures and numerous beaver dams severely limit the potential of this stream for trout management. The warm surface water runoff into Wyman Creek from the mine pits to the east and west of the headwaters spring is likely exacerbating the water temperature problems in Wyman Creek. Much of similar reach 4 and approximately the upper two-thirds of similar reach 3 flow through dark bottom, low gradient grass and sedge meadows with very little shading, which also contributes to the water temperature problems in Wyman Creek. Former and current beaver ponds and beaver activity have probably been a significant factor in the lack of shade trees in this area.

41 Ecological Classification of Waterway:

Class III (warmwater feeder) in the lowest reach (Mile 0.0 – 0.4). Class 1-D (marginal trout) for remainder of stream (Miles 0.4 – 7.7).

42 Summary:

Wyman Creek was originally a spring-fed stream originating in a cedar-spruce bog and flowing 9.4 miles south over hard and soft substrates in a pool-and-drop manner to Colby Lake. The stream flows through a taconite mining complex first owned by Erie, then LTV, and presently by Cleveland-Cliffs and Minnesota Power. Mining operations were discontinued in 2001, but not before extensive mining severely altered the headwaters of Wyman Creek. The two springs contributing cold water flows to Wyman Creek in 1968 and 1981 were hardly flowing in 2003, while most of the stream flow came from two new tributaries contributing warm water surface runoff from mine pit lakes to the east and west of the headwaters. Water temperatures in 2003 spiked into the upper 70's F, while flows appeared to be lower than in previous investigations. Extensive logging has occurred in the lower reaches of the Wyman Creek watershed, and is now occurring in the upper reaches. Beaver dams and impoundments occur along the entire length of Wyman Creek.

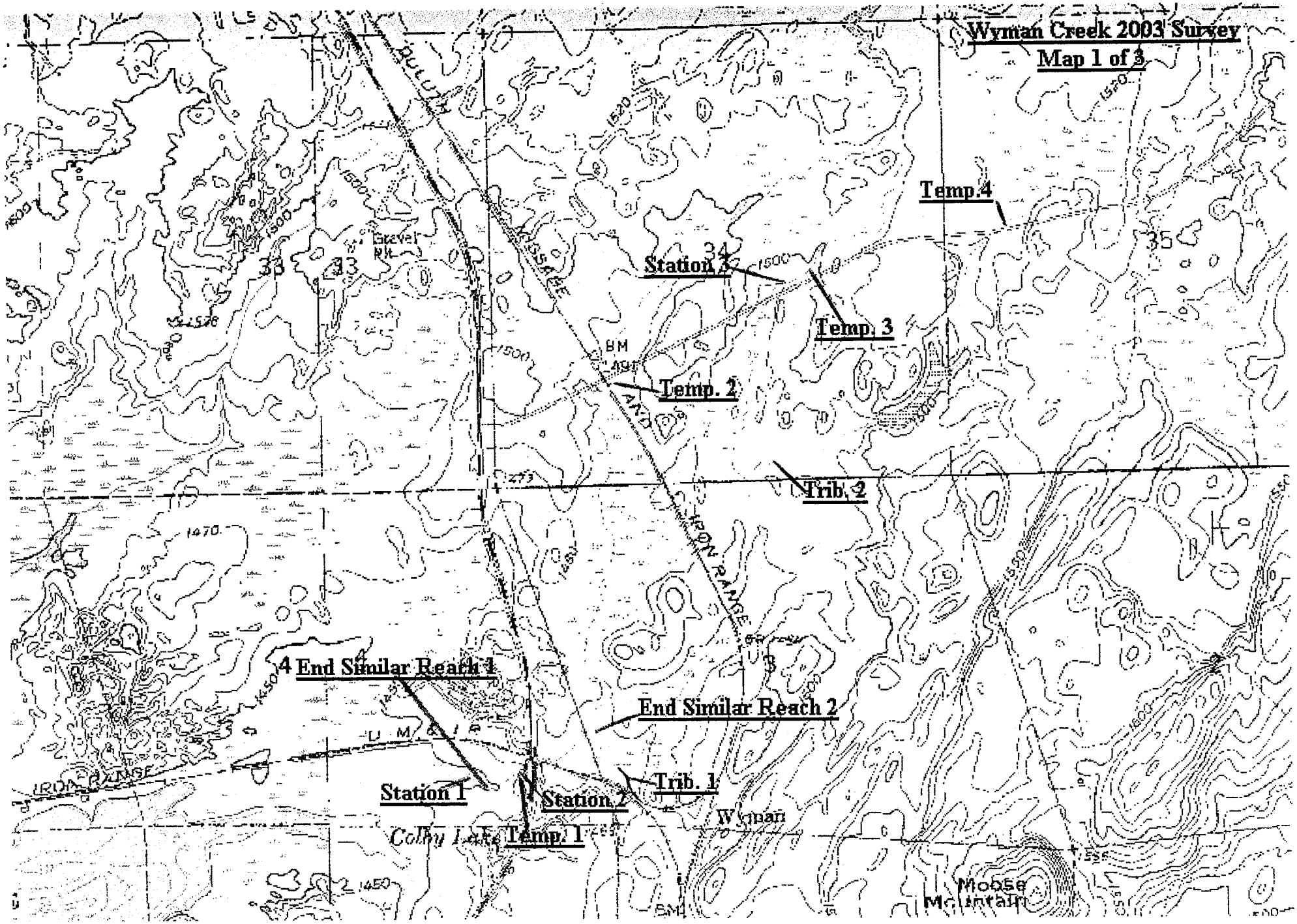
Management Recommendations:

Recommend retaining Wyman Creek on the list of Designated Trout Streams.

Monitor stream water temperatures in summers of 2004 and 2005 with recording thermometers at the same locations as the 2003 survey to evaluate year to year changes in water tempature that could result from changes in stream flow and/or differences in summer air tempatures.

Consider reinstituting yearling brook trout if additional water temperature monitoring shows more suitable temperatures for brook trout.

43	**Credits and Signature**				
a)	**Funding**				
b)	**Field work by**	**Name of crew leader**	Andy Levar, Dale Anderson		
c)	**Completed report by**	**Name**	Doug Thompson		
		Title	Asst. Area Fisheries Supervisor		
d)	**Approved by**	**Area Fisheries Supervisor**	Joseph R. Sims	**Date**	4-9-2004
		Regional Fisheries Supervisor	Timothy J. Doeman	**Date**	05-05-2004


Wyman Creek 2003 Survey
Map 1 of 3
Temp.4
Station 3
Temp. 3
Temp. 2
Trib. 2
End Similar Reach 1
End Similar Reach 2
Station 1
Station 2
Trib. 1
Temp. 1
Colby Lake
Wyman
Moose Mountain
IRON RANGE
BLUFF
Gravel Pit
BM 1491