Reviewed by UBub Date 2/2004

Region NER **County** Oconto **Report Date** 2/1989 **Classification** FAL

Water Body: Little Suamico River, unnamed trib

Discharger: Murphy Trailer 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

_____ 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:

2/1989 - Tim Doelger

Additional Comments/How to improve report:

- FAL class'n is fine -- data rather old, however.

Stream Classification
Unnamed Tributary to Little Suamico River
Murphy Trailer Park
February 1989
Tim Doelger

Introduction

In order to provide limits for a proposed discharge from Murphy Trailer Park to an unnamed tributary of the Little Suamico River, a Stream Classification Study was conducted by the Lake Michigan District. Due to time constraints, the work was performed during high water and without a formal request. Although low flow conditions are more appropriate for classifications doing the survey, during high water provided insights into channel capacities and basin conditions not usually observed.

The stream was evaluated at three locations. They are: Cross RD (1), USH 41-141 (2), and Allen Rd (3) (See map).

Methods

Flows and water chemistries were collected in June 1983 by the author. At that time, Habitat Rating Forms were also completed. Macro invertebrate collections were done in May 1983 at the three survey sites. Lab work-ups of the macroinvertibrates were performed by Laura Herman (LMD) using Hilsenhoff's Biotic Index. The results of this work can be found in Table 1.

Fisheries information was provided by Greg Kornely (Marinette Area). The report is attached and can be referred to for more detail.

Discussion

In general, this creek appears to be healthy, beginning its three mile length in a ground water fed marsh and then flowing through a fairly well buffered drainage area composed of light agricultural, wooded or fallow land. The buffering capacity of the drainage was particularly evidenced by good water clarity during a period of little soil cover combined with runoff conditions. This stream is probably influenced by non-point source inputs from USH 41/141 and occasionally by the Elmwood Cheese Factory, but to what extent is unknown.

Conclusions

By all measurements used, this stream has water quality capable of supporting a diverse aquatic population including; young of the year - warm water species indicating use as a spawning and nursery area, anadromous salmonids (probably an anomaly) indicating good water quality, forage fish and numerous species of macroinvertebrates. However, this stream is possibly subject to some impacts from non-point source and may have very low flows in dry years. Therefore, it is recommended that it receive a seasonal classification of full fish and aquatic life (B) during spring, fall and winter and a FAL (C) during the summer.

Table 1

SITE	WATER CHEM				FLOW-CFS	BIOTIC INDEX*	HABITAT RATING**
	WATER	TEMP	CENT	18			
	DO		MG/L	9.2			
	BOD	5 DAY	MG/L	2.0			
	LAB	PH	SU	8.1			
	RESIDUE	TOT NFLT	MG/L	14			
CROSS RD	PHOS-TOT		MG/L	0.07			
	PHOS-DIS	ORTHO	MG/L P	0.032	.36	1.59	119
	TOT KJEL	DL N	MG/L	0.6			
	NH3-N	DISS	MG/L	0.06			
	NO2&NO3	N-DISS	MG/L	0.75			
	T ALK	CACO3	MG/L	108			
	CHLORIDE	CL	MG/L	4.4			
	CONDUCTVY	AT 25C	MICROMHO	240			
	WATER	TEMP	CENT	18.5			
	DO		MG/L	9.1			
	BOD	5 DAY	MG/L	1.6			
	LAB	PH	SU	8.2			
USH 41/141	RESIDUE	TOT NFLT	MG/L	10			
	PHOS-TOT		MG/L	0.06			
	PHOS-DIS	ORTHO	MG/L P	0.022	.41	2.07	116
	TOT KJEL	DL N	MG/L	0.7			
	NH3-N	DISS	MG/L	0.05			
	NO2&NO3	N-DISS	MG/L	0.65			
	T ALK	CACO3	MG/L	116			
	CHLORIDE	CL	MG/L	5.8			
	CONDUCTVY	AT 25C	MICROMHO	260			
	WATER	TEMP	CENT	17			
	DO		MG/L	9.2			
	BOD	5 DAY	MG/L	2.0			
	LAB	PH	SU	7.69			
ALLEN RD	RESIDUE	TOT NFLT	MG/L	6	.34	2.57	118
	PHOS-TOT		MG/L	0.06			
	PHOS-DIS	ORTHO	MG/L P	0.024			
	TOT KJEL	DL N	MG/L	0.06			
	NH3-N	DISS	MG/L	0.06			
	NO2&NO3	N-DISS	MG/L	0.62			
	CHLORIDE	CL	MG/L	5.2			
	CNDUCTVY	AT 25c	MICROMHO	250			

0.1.75 Excellent No Organic Pollution
1.76-2.25 Very Good Possible Organic Pollution
2.26-2.75 Good Some Pollution
*<70=Excellent, 71-129=Good, 130-200=Fair

CORRESPONDENCE/MEMORANDUM — STATE OF WISCONSIN

Date: March 23, 1984 File Ref: 3600

To: Tim Doelger

RECEIVED
MAR 30 1984
Lake Mich. Dist.

From: Greg W. Kornely GWK

Subject: Fishery investigation - unnamed stream 23-15, T.26N.-R.20E., Oconto County. (We will call it Murphy Creek.)

This survey was conducted on May 11, 1983, to obtain some base line data on the fishery present in Murphy Creek.

Murphy Creek is located south of Sobieski in Oconto County. It originates as lowland drainage in S.28-T.26N-R.20E. and flows approximately three miles before entering the Little Suamico River.

The stream has clear water and limited flow. One backpack stream shocker was used to sample the fishery. Three stations were surveyed for a total of 600' of stream. Fish species captured included a yearling northern pike, two yearling rainbow trout, and forage species including small white suckers, a mudminnow and a spottail shiner. The rainbow trout were captured in the culvert below the Allen Road crossing. They must have strayed some distance from one of the trout stockings into Green Bay.

Stream substrate was primarily sand and gravel, and instream cover was scarce.

Murphy Creek had been considered an intermittent stream in a previous survey of the Little Suamico River, 1975, and a local resident indicated this same information at the time of the present survey.

Murphy Creek has a limited recreational fishery potential, primarily because of the low volume of water. There probably are some spring spawning runs of northern pike up into the headwaters during high water.

Murphy Creek should be looked at in the drier mid-summer months to determine the amount of flow at that time of year.

GWK:lep

STATION REPORT

DEPARTMENT OF NATURAL RESOURCES

AM LITTLE TRIB. TO SUAMICO R.	Survey Station No. I	POINT OF EXAMINATION 100' upstream of Cross Rd 100' downstream of Cross Rd
TO		
Section 27, 28	Distance Sampled (ft.) 200'	GEAR USED BACK-PACK STREAM SHOCKER

Avg. Depth (ft.)	Vol. of Flow (c.f.s.)	VELOCITY	Max. Flood Crest (ft.)
.8'		[ ] Sluggish [X] Moderate [ ] Rapid	[illegible]

	CONDUCTANCE	TEMPERATURE	pH	M.P.A.
[ ] Stained [ ] Dirty	..... C_f ..... C_{77}	11° C 52° F Water ..... Air 1200 Time		..... ppm

CONDITIONS	PRIOR WEATHER CONDITIONS
[X] Normal ..... In Above	GENERALLY WET & COOL

NONE OBSERVED

OM TYPES (%)					POOL GRADE
k	.....Hardpan	.....Boulder	.....Rubble	...10...Gravel	[illegible]
	...50...Silt	.....Marl	.....Detritus		POOL-RIFFLE RATIO

ETATION (Species)	Abund.	AQUATIC VEGETATION (Species)	Abund.	AQUATIC VEGETATION (Species)	Abund.

ER	Scarce	Common	Abundant	Stable	Unstable	AQUATIC LIFE	Scarce	Common	Abundant
		X above Cross RD				Stonefly			
rs						Mayfly			
		X below Cross Rd				Caddisfly			
						Gammarus ~~Shrimp~~		X	
ation						Crayfish			

VEGETATION

.....% Cultivated	.....% Upland Hardwood	.....% Swamp Conifer
.....% Firm Pasture	.....% Upland Conifer	.....50.....% Shrub Marsh
.....% Meadow Pasture	.....50.....% Swamp Hardwood	.....% Open Marsh

R	FISHABILITY			
[X] Partly Open [ ] Open	[ ] Excellent [ ] Good [X] Fair [ ] Poor			
N [ ] Medium [X] Light [ ] None	DAMS	Number	Height	Pool Area Above
	Man-made	0		
S 1-2'	Beaver (active)	0		
TREAM DEVICES [ ] Medium [ ] Light [X] None	Beaver (inactive)	0		

D.O. 8.8 ppm taken West of Cross Rd at Culvert

[illegible] -- 1 Northern pike (11.0")

(use back of sheet for additional remarks)

VEY	INVESTIGATOR
[illegible]	[illegible]

CY STATION REPORT

DEPARTMENT OF NATURAL RESOURCES

STREAM	Survey Station	POINT OF EXAMINATION
LITTLE ...EO TRIB. TO GUAMICO R.	No. II	200' downstream from Hwy 41
...SCONTO		

...p Range	Section	Distance Sampled (ft.)	GEAR USED
...20E	26	200'	BACK-PACK STREAM SHOCKER

...th	Avg. Depth (ft.)	Vol. of Flow (c.f.s.)	VELOCITY	Max. Flood Crest (ft.)
...9'	.7'		☐ Sluggish X ☐ Moderate ☐ Rapid	

	CONDUCTANCE	TEMPERATURE	pH	M.P.A.
...ear ☐ Stained ☐ Dirty	..... C_f ..... C_{77}	53°F Water ..... Air 1300 Time		..... ppm

...LEVEL CONDITIONS	PRIOR WEATHER CONDITIONS
...below ...X Normal ...Above	WET + COOL + RAINING

...TION
NONE

...A BOTTOM TYPES (%)	POOL GRADE
...Bedrock ...Hardpan ...1...Boulder ...Rubble ...10...Gravel	100% B
...Sand ...Silt ...Marl ...Detritus	POOL-RIFFLE RATIO FLAT

...IC VEGETATION (Species)	Abund.	AQUATIC VEGETATION (Species)	Abund.	AQUATIC VEGETATION (Species)	Abund.

...AM COVER	Scarce	Common	Abundant	Stable	Unstable	AQUATIC LIFE	Scarce	Common	Abundant
...anks	X					Stonefly			
...boulders	X					Mayfly			
...trees		X				Caddisfly			
	X					Gammarus Shrimp		X	
...c Vegetation	X					Crayfish			

...M BANK VEGETATION

...% Cultivated	...% Upland Hardwood	...% Swamp Conifer
...% Firm Pasture	...% Upland Conifer	...% Shrub Marsh
...% Meadow Pasture	100 % Swamp Hardwood	...% Open Marsh

...M COVER				FISHABILITY			
...Dense	☐ Partly Open	[X] Open		☐ Excellent	[X] Good	☐ Fair	☐ Poor
...EROSION				DAMS	Number	Height	Pool Area Above
...Heavy	☐ Medium	[X] Light	☐ None	Man-made	0		
...HEIGHTS	1-3'			Beaver (active)	0		
...FOR INSTREAM DEVICES				Beaver (inactive)	0		
...Heavy	☐ Medium	☐ Light	[X] None				

...RKS

...h species captured: 1 mudminnow, 1 spotted shiner, 4 white suckers (5-9")

(use back of sheet for additional remarks)

...OF SURVEY	INVESTIGATOR
...ust 11, 1993	KORNELY, LANGER, DOLGER, [illegible]

3-39

F STREAM	Survey Station No. III	POINT OF EXAMINATION
NTY: Oscoda		100' downstream and 100' upstream from Allen Road.
ship Range Section: 26S. 23	Distance Sampled (ft.): 200'	GEAR USED: Back pack stream shocker

Width	Avg. Depth (ft.)	Vol. of Flow (c.f.s.)	VELOCITY	Max. Flood Crest (ft.)
7.2'	.62'		[ ] Sluggish [X] Moderate [ ] Rapid	3'

ER	CONDUCTANCE	TEMPERATURE	pH	M.P.A.
[ ] Clear [ ] Stained [ ] Dirty	..... C_f ..... C_{77}	53°F Water ..... Air 1400 Time		..... ppm

R LEVEL CONDITIONS	PRIOR WEATHER CONDITIONS
..... Below X Normal ..... Above	GENERALLY WET & COOL

LUTION: NONE OBSERVED IN STREAM

AM BOTTOM TYPES (%)	POOL GRADE
..... Bedrock ..... Hardpan ..... Boulder ..... Rubble 15 Gravel	100 - 2
0 Sand 15 Silt ..... Marl ..... Detritus	POOL-RIFFLE RATIO: FLAT 100%

TIC VEGETATION (Species)	Abund.	AQUATIC VEGETATION (Species)	Abund.	AQUATIC VEGETATION (Species)	Abund.

EAM COVER	Scarce	Common	Abundant	Stable	Unstable	AQUATIC LIFE	Scarce	Common	Abundant
banks	X					Stonefly			
s, boulders	X					Mayfly			
trees		X				Caddisfly			
s	X					Gammarus Shrimp		X	
tic Vegetation	X					Crayfish			

AM BANK VEGETATION

..... % Cultivated	..... % Upland Hardwood	..... % Swamp Conifer
..... % Firm Pasture	..... % Upland Conifer	..... % Shrub Marsh
..... % Meadow Pasture	100 % Swamp Hardwood	..... % Open Marsh

AM COVER	FISHABILITY
[ ] Dense [ ] Partly Open [X] Open	[ ] Excellent [X] Good [ ] Fair [ ] Poor

EROSION	DAMS	Number	Height	Pool Area Above
[ ] Heavy [ ] Medium [ ] Light [X] None	Man-made	0		
HEIGHTS: 1-3'	Beaver (active)	0		
FOR INSTREAM DEVICES: [ ] Heavy [ ] Medium [ ] Light [X] None	Beaver (inactive)	0		

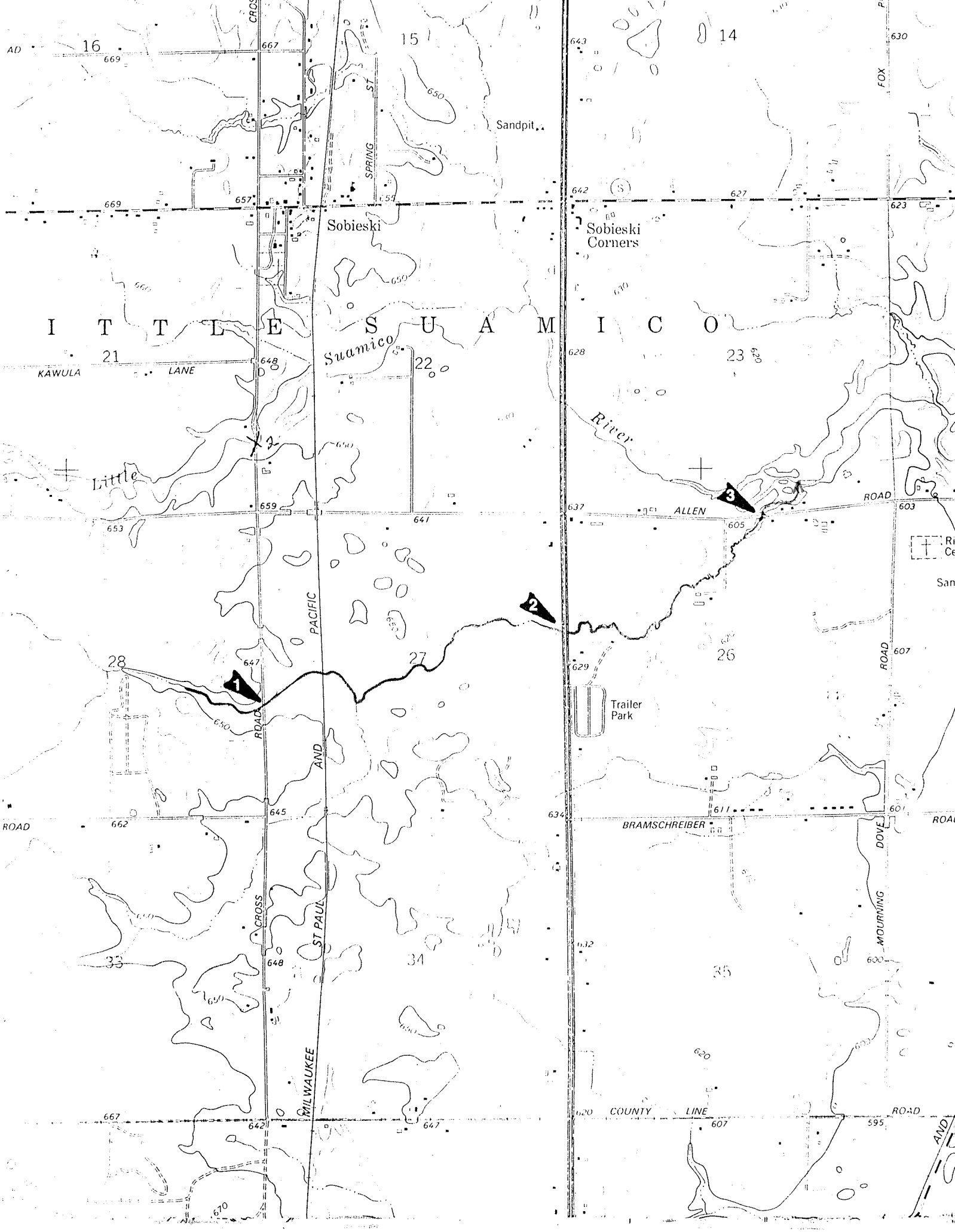
RKS

D.O. Taken at Allen Rd Crossing 10.2 ppm.

species captured 2 - Rainbow trout (7.6", 6.8") plus 4 white suckers

(use back of sheet for additional remarks)

OF SURVEY	INVESTIGATOR
May 11, 1973	KORNELY, LANGER, DOLGER, WEISSEFEL


16
15
14
Sandpit
SPRING
ST
FOX
Sobieski
Sobieski Corners
I T T L E S U A M I C O
Suamico
River
Little
21
22
23
KAWULA
LANE
ALLEN
ROAD
PACIFIC
AND
ST PAUL
MILWAUKEE
CROSS
28
27
26
Trailer Park
BRAMSCHREIBER
DOVE
MOURNING
33
34
35
COUNTY
LINE
1
2
3

CROSS RD.
DOWNSTREAM

USH 141-41
DOWNSTREAM

ALLEN RD.
DOWNSTREAM