

Bub, Laura A

From: Warwick, Shelley
Sent: Friday, July 08, 2005 3:22 PM
To: Bub, Laura A; Wawrzyn, William G
Subject: RE: NR 104 update- discharge to Trib to Rubicon Rive, Slinger WWTP

I talked with Will about this Tuesday and he's going to be commenting further and hopefully filling out forms related to the stream class. (Unless he takes me up on my offer to finish it). Based on my conversation with him, it sounds like it should be changed for this round of revisions. Will correct me if I'm wrong.

Shelley

-----Original Message-----

From: Bub, Laura A
Sent: Friday, July 08, 2005 3:15 PM
To: Warwick, Shelley
Subject: RE: NR 104 update- discharge to Trib to Rubicon Rive, Slinger WWTP

Thanks for sending this report, Shelley.

Do you recommend that the change from LAL to DFAL take place during this current revision, i.e. Phase 1? Or should it wait until the next revision?

Please let me know.

Laura

Laura Bub
Bureau of Watershed Management
(608) 261-4385

From: Warwick, Shelley
Sent: Friday, July 01, 2005 2:49 PM
To: Bub, Laura A
Cc: Thompson, Timothy A.; Fratrack, Jackie A; D'Antuono, James
Subject: NR 104 update- discharge to Trib to Rubicon Rive, Slinger WWTP

<< File: rubicon_1_.doc >>
Please let me know if you have any questions Laura or need additional clarification.

Thank you,

Shelley

DATE: 6/28/05

FILE REF: 3600

TO: Laura Bub, WT/2

FROM: Shelley Warwick, WT/SER - Waukesha

SUBJECT: Unnamed Tributary to the Rubicon River, Slinger WWTP, Washington County

On 6/16/2005 a field visit was made to the Slinger Wastewater Treatment Plant to document the discharge location. In the past there was confusion associated with this discharge being located on the Rubicon or a tributary to the Rubicon. We found that the Slinger WWTP discharge is located on an unnamed tributary to an unnamed tributary to the Rubicon River. The discharge channel which is approximately 15 meters long flows north from the concrete outfall where it joins with a small unnamed (probably first order) stream. From this point, the stream flows west for approximately 120 meters until it meets the second unnamed tributary to the Rubicon River. The stream then flows southwest until it meets the Rubicon River in approximately 3 stream miles just North of Hwy 60 and Hilldale Road.



Slinger WWTP outfall looking North



First unnamed tributary to Rubicon looking upstream (east), intermittent at this point because it is just upstream of the discharge channel confluence



First unnamed tributary looking downstream (west), perennial at this point because it is immediately downstream of discharge channel confluence



Confluence of first unnamed tributary with second unnamed tributary looking Northeast

The current classification listed in Wisconsin Administrative Code NR 104 is Limited Aquatic Life. Based on reviewing historical fisheries data for the Rubicon River and from Fisheries Biologist William Wawrzyn's e-mail to the Village of Slinger WWTP dated May 13, 2004, it appears that the stream should be formally classified as Diverse Fish and Aquatic Life-game fish waters (DFAL-G) or Diverse Fish and Aquatic Life-non gamefish waters (DFAL-NG).

I would anticipate that future data collection would support the higher classification of DFAL-G due to historical gamefish collection records and the most recent data from 2001 where Bluegill, Largemouth Bass and Yellow perch were collected on the Rubicon River at Hilldale Road (just south of the confluence with the unnamed tributary that the Slinger discharge is located on). In addition, historical data indicates that the Striped Shiner (state endangered) and the Least Darter (state special concern) are found in the Rubicon River. I am able to collect data and write a formal stream classification report to support the classification conclusions when needed.

Table 1. Unnamed Tributary to the Rubicon River Fish Community

Fish Species	Upstream of Slinger POTW 1995	Upstream Slinger POTW 1996	Downstream Slinger POTW 1995	Downstream Slinger POTW 1996
Brook Stickleback	5	126	34	104
Creek Chub		48	4	93
Green Sunfish		3	1	3
Fathead Minnow	8	71	58	2
Johnny Darter			4	4
Central Mudminnow		4	1	7
Bluntnose minnow			2	

cc: Timothy Thompson, Jackie Fratrack, James D'Antuono

Region SER County Washington Report Date 9/1975 Classification LALWater Body: Rubicon RiverDischarger: Slinger WWTP

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)

OK Biological Data (fish/invert) narrative listing of species

_____ Chemical Data (temp, D.O., etc.)

_____ Physical Data (flow, depth, etc.) estimate of flow mentioned

_____ Habitat Description

OK Site Description/Map Shore site description - maps in file.

_____ Other:

Historical Reports in file:

2/76: unk

9/75: unk

Additional Comments/How to improve report:

- unclear as to whether LAL class'n is assigned b/c of effluent ditch/
wetland default class'n, or for some other reason.
- more supporting data would be useful (chem, biol, etc.)

is this truly an effluent ditch?

Schuettpelz

RUEKERT & MIELKE, INC.

PROFESSIONAL ENGINEERS

REGISTERED LAND SURVEYORS

419 FREDERICK STREET

WAUKESHA, WISCONSIN 53186

TELEPHONE
(414) 542-5733

1946-1976
30 YEARS OF SERVICE

January 26, 1977

Mr. Jeffrey B. Bode
Environmental Protection Section
Southeast District
9722 W. Watertown Plank Road
Milwaukee, Wisconsin 53226

Re: Village of Slinger

Dear Mr. Bode:

As per our telephone conversation on January 25, 1977, I have enclosed a map of a potential site for a new wastewater treatment facility at Slinger, Wisconsin. Please supply us with an estimate of the effluent limitations for 1) discharge to the marsh area north of the railroad tracks which is drained by the upper reaches of the Rubicon River, and 2) discharge directly to the upper reaches of the Rubicon River.

Your prompt reply would be greatly appreciated as we will soon be working on the Cost-effectiveness Analysis/ Environmental Assessment of various treatment alternatives for Slinger.

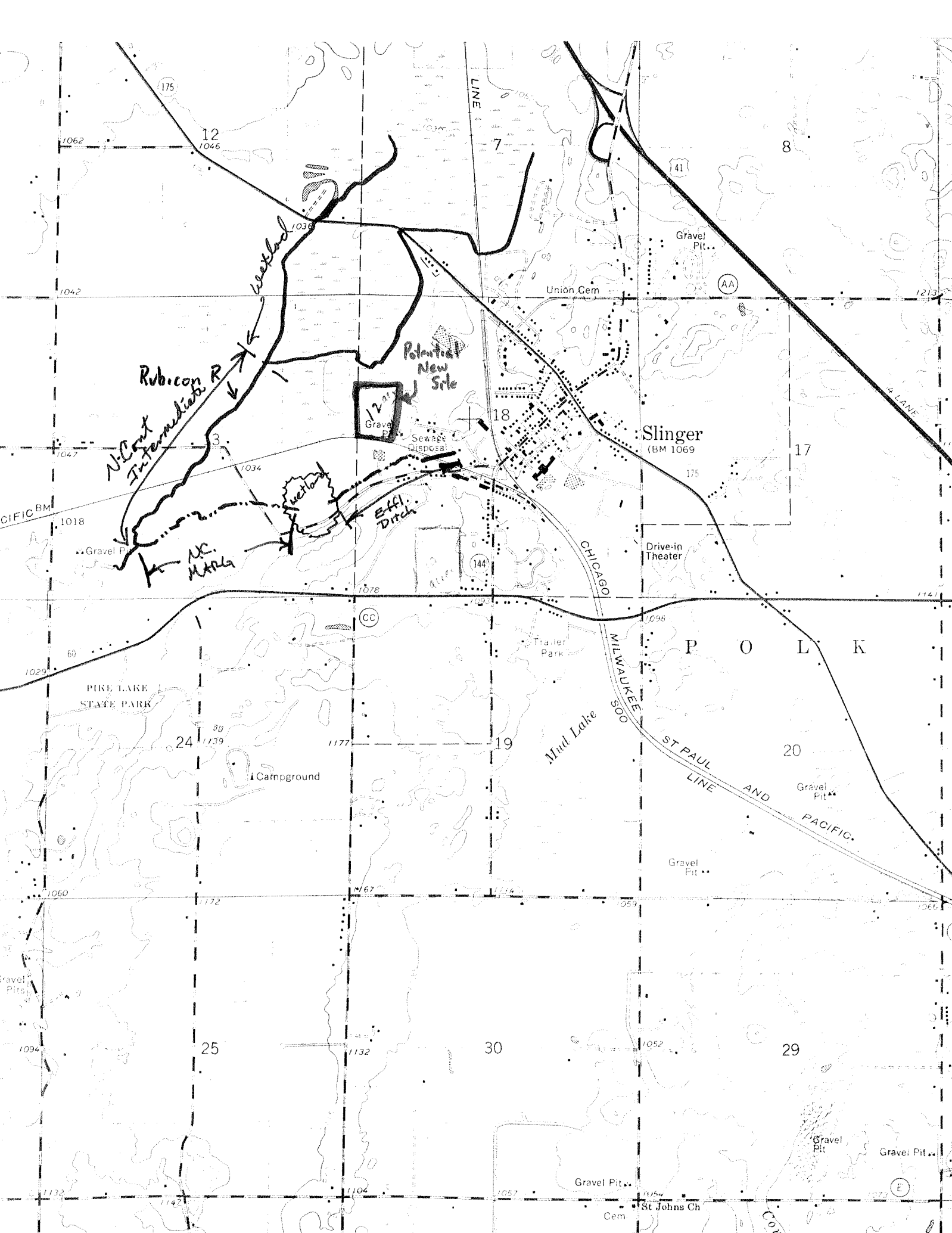
Very truly yours,

RUEKERT & MIELKE, INC.

James E. Owen
James E. Owen

JEO:kj
Enclosure

cc: Mr. Duane Schuettpelz
Water Quality Evaluation Section ✓



Rubicon R
N-Cent Intermediates

Potential New Site

Slinger
(BM 1069)

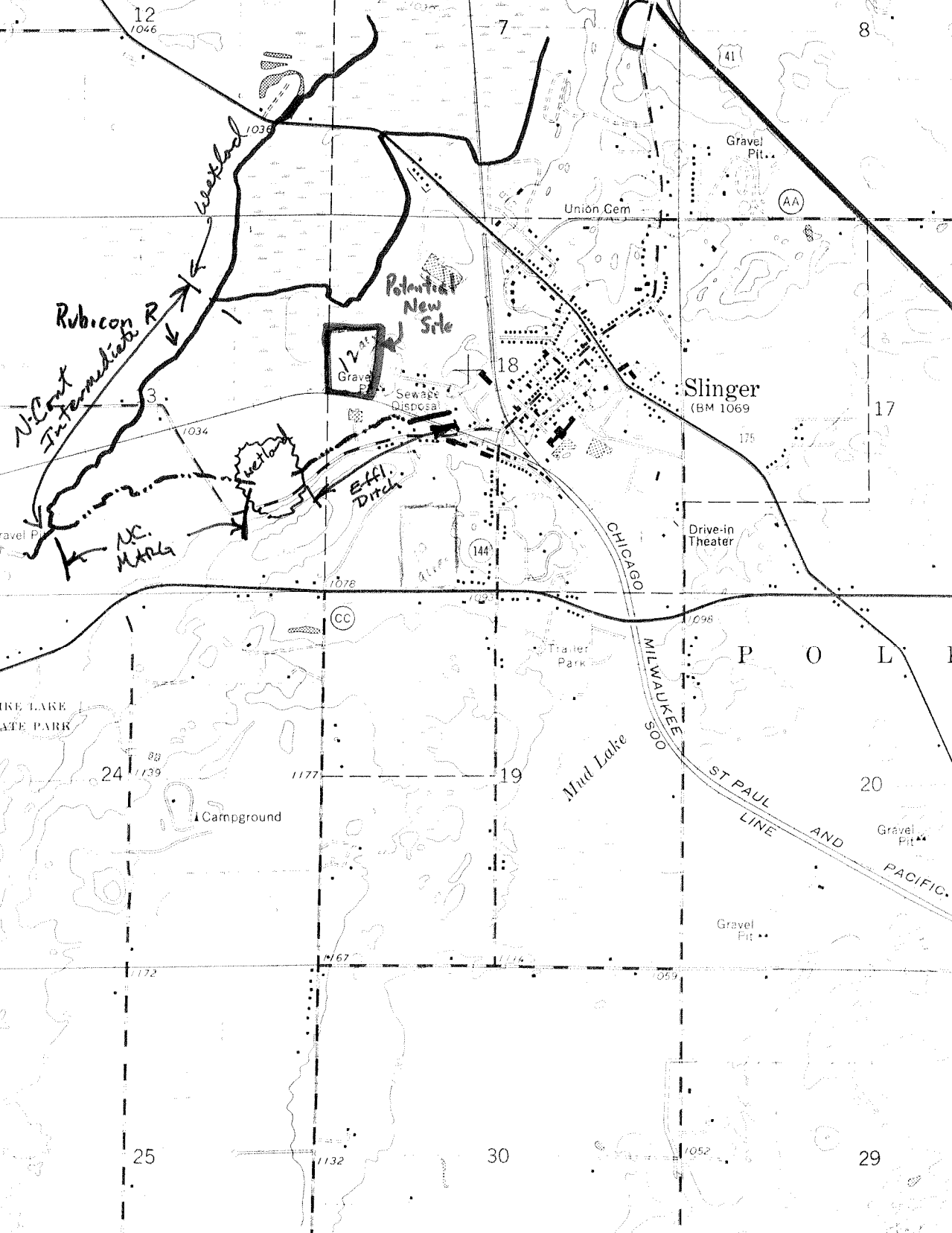
PIKE LAKE
STATE PARK

Mud Lake

P O L K

ST PAUL
LINE AND
PACIFIC

St Johns Ch



Rubicon R
N-Cent Intermediates

Potential New Site

Slinger
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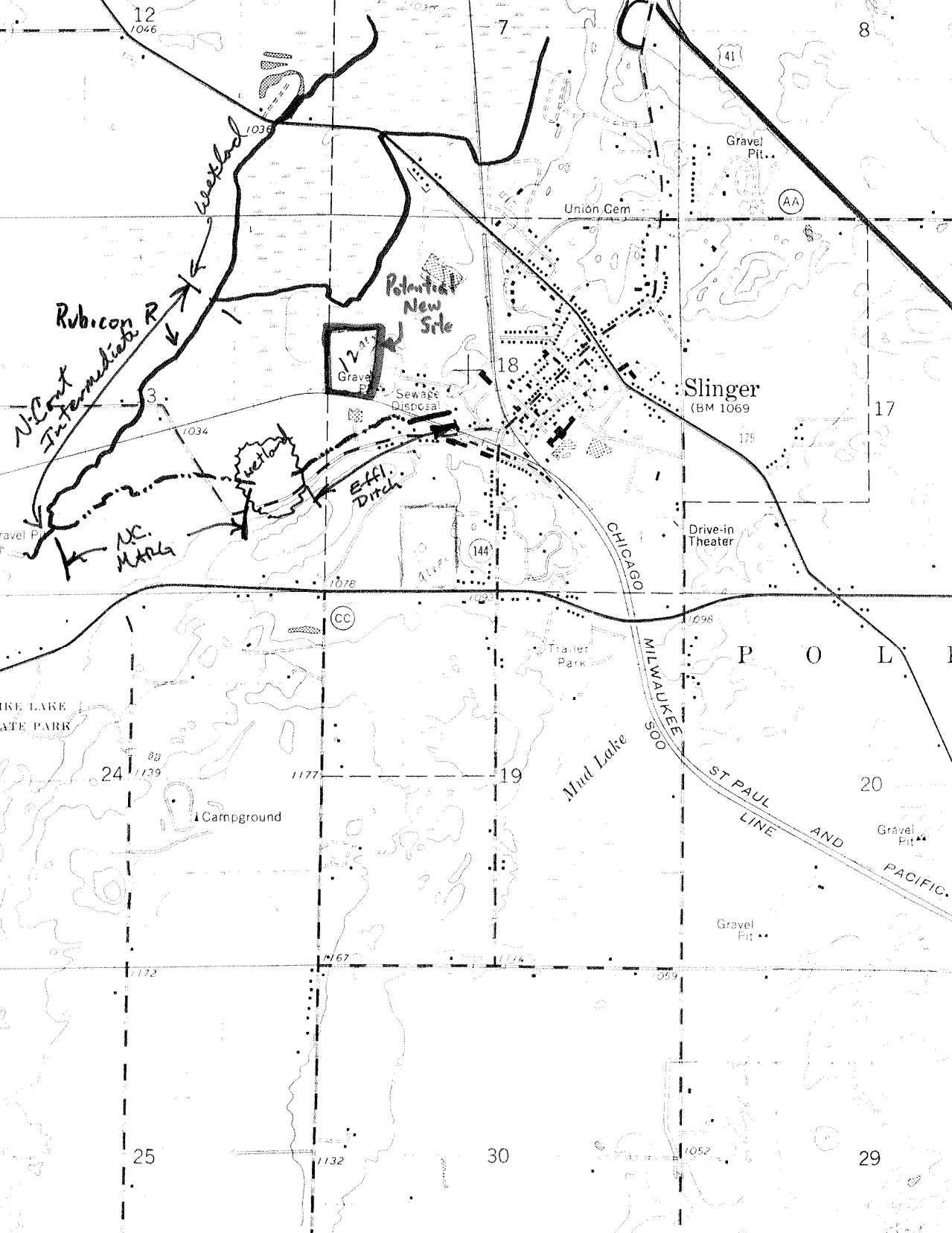
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St Johns Ch

Slinger Ditch, Washington County
Upper Rock River Drainage Basin

The effluent from the Slinger Wastewater Treatment Plant is discharged to the Slinger Ditch, which has a $7Q_{10}$ of 0 cfs. The ditch also receives flow from the Slinger Foundry. Below Slinger the ditch flows along the Chicago, Milwaukee, St. Paul and Pacific Railroad tracks through agricultural and marsh land before disappearing underground in a marsh about 1.5 miles downstream of the treatment plant. The flow does not reappear; however, a spring does surface about 0.25 miles below the point where the ditch dries up. This spring-fed stream flows to the Rubicon River. The Rubicon River flows southwest to a marshy area on Pike Lake and then turns northwest. This marsh is important as spawning grounds for northern pike. The Rubicon River, just above the confluence point has a $7Q_{10}$ of 0.01 cfs and a drainage area of 4.03 square miles.

Recommendations

The section of the Slinger Ditch from the Slinger WWTP to the first marsh adjacent to Slinger Road shall be classified as an effluent ditch. The marsh adjacent to Slinger Road shall be classified as a wetland. The section of the ditch from the marsh to the confluence with the Rubicon River shall be classified as a non-continuous agricultural stream. The Rubicon River above the confluence with the Slinger Ditch shall be classified as a non-continuous agricultural stream. The Rubicon River below the confluence with the Slinger Ditch to Pike Lake shall be classified as a fish and aquatic life stream. Pike Lake shall be classified as a lake.

Slinger Ditch, Slinger, WASA/MSD

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SOUTHEAST DISTRICT

Surface Water (Facility Affected) (County)	Reach Description	Hydrologic Classification	Applicable Criteria (1)	Effluent Limitations (2) A. 10
Slinger WWT.P, Slinger, Wis. Kenosha County.	Slinger WWT.P. Discharge to Slinger Ditch down to 1st. marsh (2 Yrmi) adjacent to Slinger Road.	EFFLUENT DITCH	EFFLUENT Ditch.	
	1st marsh adjacent to Slinger Road	MARSH	WETLAND.	B
	Slinger ditch marsh (Slinger Rd (2.1) det. to Rubicon River	NON-CONT	II AGR.	B
	RUBICON River Above CONFLUENCE with Slinger ditch.	(101)	II AGR.	
	RUBICON River From Confluence with Slinger D. to Pike Lake	CONTINUOUS		FISH & AQUATIC
	Pike Lake	Lake		Lake

RJ

T. 10 N. - R. 18 E. POLK

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Rubicon River, Washington County
Upper Rock River Drainage Basin

The Rubicon River upstream of Pike Lake drains agricultural lands, wetlands, undeveloped uplands and urban development.

The Rubicon River originates in a wetland in Polk Township, Washington County, (Section 7, T10N, R19E). This section of stream flows along the western margin of the wetland approximately one mile before receiving a tributary from the east. This tributary drains the eastern portion of the wetland. Both of these watercourses have been subjected to some channelization.

Downstream of the tributary confluence, the Rubicon River flows less than a mile through primarily agricultural land before being joined by the Slinger Ditch.

The Rubicon River just above the confluence point has an estimated $7Q_{10}$ of 0.01 cfs. and a drainage area of 4.03 square miles.

An electrofishing survey conducted by Department of Natural Resources personnel near Slinger Road in September, 1975, collected the following fish: bluntnose minnow (Pimephales notatus), brook stickleback (Culaea inconstans), mudminnow (Umbra limi), johnny darter (Etheostoma nigrum), white sucker (Catostomus commersoni), fathead minnow (Pimephales promelas), blackchin shiner (Notropis heterodon), and creek chub (Semotilus atromaculatus).

The effluent from the Slinger Wastewater Treatment Plant is discharged to the Slinger Ditch, which has a $7Q_{10}$ of 0 cfs. The ditch also receives flow from the Slinger Foundry. The ditch flows from Slinger along the Chicago, Milwaukee, St. Paul and Pacific Railroad tracks through agricultural and marsh land.

Recommendations

The Rubicon River from the origin downstream to the tributary confluence shall be classified as a noncontinuous agricultural stream. The tributary shall be classified as a wetland. The Rubicon River from the tributary confluence downstream to the Slinger Ditch confluence shall be classified as a noncontinuous, intermediate aquatic life stream. The Rubicon River from the above point downstream to Pike Lake shall be classified as a continuous fish and aquatic life stream. The section of Slinger Ditch from the Slinger Wastewater Treatment Plant downstream to the first marsh adjacent to Slinger Road shall be classified as an effluent ditch. The marsh adjacent to Slinger Road shall be classified as a wetland. The section of the ditch from the marsh downstream to the Rubicon River confluence shall be classified as a noncontinuous agricultural stream.