

(Attach supporting data sheets)

Use Designation Information – Required

Water Body Name Yellow River	WBIC # 2154500	Date 02/15/2005
Region: <input type="checkbox"/> NER <input checked="" type="checkbox"/> NOR <input type="checkbox"/> SCR <input type="checkbox"/> SER <input type="checkbox"/> WCR	Basin Upper Chippewa	County Taylor

Quad Map Where Segment is Shown

Gilman

Reference Site(s) (Attach use designation form for reference site/cond.)

Segment Description for Segment 1 of 1 (headwater = segment 1)

From: The Yellow River upstream <u>1190</u> <input type="checkbox"/> mi., <input type="checkbox"/> km., <input checked="" type="checkbox"/> ft., <input type="checkbox"/> M.	Latitude: DEG MIN SEC 45 09 08.5000 N Longitude: DEG MIN SEC Datum Used 090 49 16.2000 W NAD 83 Township Range <input type="checkbox"/> E Section ¼-Section ¼, ¼-Section 31 N 04 <input checked="" type="checkbox"/> W 24 SW NW
To: the Gilman wastewater lagoon outfall	Latitude: DEG MIN SEC 45 09 17.7000 N Longitude: DEG MIN SEC Datum Used 090 49 23.2000 W NAD 83 Township Range <input type="checkbox"/> E Section ¼-Section ¼, ¼-Section 31 N 04 <input checked="" type="checkbox"/> W 24 SW NW

Attach site map and photos (prefer digital) showing stream segment and discharge point.

Date Fieldwork Conducted/Completed

05/26/1995

Use Designation Status:

- New Use Designation (First Field Assessment)
 Standards Review (Updating Previous Field Assessment)
 Reference Site

Current Codified Fish and Aquatic Life Use Designation:

- Coldwater Community
 Warmwater Sport Fish Community
 Warmwater Forage Fish Community
 Tolerant Fish and Aquatic Life Community (LFF)
 Very Tolerant Aquatic Life Community (LAL)

- Default
 Field Assessment – Date (mm/dd/yyyy): _____

Existing FAL Use Based on Current Data:

- Coldwater Community
 Warmwater Sport Fish Community
 Warmwater Forage Fish Community
 Tolerant Fish and Aquatic Life Community (LFF)
 Very Tolerant Aquatic Life Community (LAL)

Recommended Attainable Use Designation:

- Coldwater A (Coldwater)
 Coldwater B (Coldwater)
 Diverse Fish and Aquatic Life
 Tolerant Fish and Aquatic Life (LFF)
 Very Tolerant Aquatic Life (LAL)

Recommended Seasonal Use Designation(s):

- Coldwater A (Coldwater)
 Coldwater B (Coldwater)
 Diverse Fish and Aquatic Life
 Tolerant Fish and Aquatic Life (LFF)
 Very Tolerant Aquatic Life (LAL)

Effective Date: (mm/dd/yyyy)

_____ to _____
 _____ to _____
 _____ to _____
 _____ to _____

Other Applicable Uses (as recognized by existing administrative rule):

- Outstanding Resource Water
 Exceptional Resource Water
 Great Lakes System
 Public Drinking Water Supply
 Recreational Use
 Wildlife

Community Types:

- Class I Trout Macroinvertebrates
 Class II Trout Endangered/Threatened Species
 Class III Trout Intolerant Species
 Coldwater A Coolwater
 Coldwater B Tolerant Fish
 Game Fish Tolerant Macroinvertebrates
 Non-Game Fish

Fish and Aquatic Life Use Designation Summary

Form 3200-121 (12/04)

Page 2 of 6

Water Body Name	WBIC #	Date
Yellow River	2154500	02/15/2005

Use Designation Information (continued)

Basis for Use Designation Decision (List and briefly discuss key elements for the decision) – Use Attachment A, if necessary
 There is diffuse flow through a wetland between the outfall and the Yellow River. There is no potential for fish use.

Discharger Information – Required

Municipality/Company	WPDES Permit Number	Date Permit Issue	Permit Renewal
Gilman	0030937	10/01/2004	12/31/2008

Outfall Location

N45 09 17.7, W90 49 23.2

Contact Person	Contact Date(s)
Kelly Dietzler	

Did a Representative Observe Field Assessment? Yes No

Representative	Telephone Number (include area code)

Comments about facility representative's observations, etc.

Literature Review – Use Attachment B, if necessary

1. Previous classification reports and use designations – cite here and attach
 NR104.10, table 8, no. 5 (January 2002) designates this segment as very tolerant aquatic life (LAL). A 11/30/1976 classification report recommends this segment be designated as very tolerant aquatic life (LAL).

2. All previous studies and data associated with the water body that are applicable to use designation – cite here and attach

3. Is stream listed as trout water in Wisconsin Trout Streams? Yes No If yes, cite here and attach a copy

4. Any other literature applicable to the fish and aquatic life use designation – cite here and attach

5. Summarize and interpret the literature available and how it relates to and supports the recommended use designation

Fish and Aquatic Life Use Designation Summary

Form 3200-121 (12/04)

Page 3 of 6

Water Body Name Yellow River	WBIC # 2154500	Date 02/15/2005
---------------------------------	-------------------	--------------------

Field Assessment Data and Observations – Use Attachment C, if necessary

Assessment Date (mm/dd/yyyy) 05/26/1995	Additional Assessment Date(s):
--	--------------------------------

<p>Stream Segment Physical/Chemical Data:</p> <p>Length _____ <input type="checkbox"/> feet <input type="checkbox"/> meters <input type="checkbox"/> miles</p> <p>Avg. Width _____ <input type="checkbox"/> feet <input type="checkbox"/> meters</p> <p>Max. Width _____ <input type="checkbox"/> feet <input type="checkbox"/> meters</p> <p>Avg. Depth _____ <input type="checkbox"/> feet <input type="checkbox"/> meters</p> <p>Max. Depth _____ <input type="checkbox"/> feet <input type="checkbox"/> meters</p> <p>Gradient _____ Velocity _____</p>	<p>Substrate Material:</p> <p>Silt _____% Organic _____%</p> <p>Rubble _____% Gravel _____%</p> <p>Sand _____% Other _____%</p> <hr/> <p>Stream Flow _____ cfs <input type="checkbox"/> Measured <input type="checkbox"/> Estimated</p> <p>At time of assessment, flow was: <input type="checkbox"/> High <input type="checkbox"/> Low <input type="checkbox"/> Very Low</p> <p>7Q2 Flow _____ cfs</p> <p>7Q10 Flow _____ cfs</p>
--	--

Stream Temperature _____ °C Instantaneous 24-Hr. Maximum 24-hr. Avg.

Dissolved Oxygen (Instantaneous) _____ mg/L Time of Day ____:____ am pm

Minimum Dissolved Oxygen Recorded _____ mg/L Time of Day ____:____ am pm

Maximum Dissolved Oxygen Recorded _____ mg/L Time of Day ____:____ am pm

Method of Analysis: Meter Modified Winkler Method

<p>Effluent Flow:</p> <p>Daily Average _____ cfs <input type="checkbox"/> Measured <input type="checkbox"/> Estimated</p> <p>Design Flow _____ cfs (Convert MGD to cfs by multiplying by 1.55)</p>	<p>Chemical Data Collected: (STORET # _____)</p> <p><input type="checkbox"/> Ammonia <input type="checkbox"/> Pesticides <input type="checkbox"/> Other: _____</p> <p><input type="checkbox"/> Atrazine <input type="checkbox"/> Phosphorus <input type="checkbox"/> Other: _____</p> <p><input type="checkbox"/> Bacteria <input type="checkbox"/> Metals <input type="checkbox"/> Other: _____</p>
--	---

Brief Interpretation/Comments:
There is diffuse flow through a wetland area.

Habitat – Use Attachment D, if necessary

Procedure: Guidelines For Evaluating Fish Habitat in Wisconsin Streams (Simonson, Lyons and Kanehl, 1994)

Development and Evaluation of a Habitat Rating System For Low Gradient Wisconsin Streams

Other – Describe: _____

Habitat Rating – Attach Habitat Rating Forms: Excellent Good Fair Poor

Significant Problems Affecting Use Attainment:

Low-flow Sedimentation Bank Erosion Ditching Fish Cover Depth

Other – Describe: _____

Observations About Habitat Quality:
There is diffuse flow through a wetland area. In 1975, the flow path was described as a meadow and wooded area. It appears effluent discharge may have transformed the area to a wetland.

Water Body Name	WBIC #	Date
Yellow River	2154500	02/15/2005

Biological Data – Fish data is required

Fish:

Sampling Date (mm/dd/yyyy) _____

Species List and IBI Forms: Attached to Report Not Applicable

Survey Location(s) _____

Distance Sampled _____ feet meters miles

Sampling Gear: Backpack Shocker Other – Describe: _____

Number of Species Collected _____ Total Number of Fish Collected _____

Number of Intolerant Species _____ % Intolerant Species _____

Endangered or Other Special Category Species Collected:

Species _____	No. of Individuals Collected _____
Species _____	No. of Individuals Collected _____
Species _____	No. of Individuals Collected _____

IBI Score _____ Rating _____

Macroinvertebrates:

Sampling Date (mm/dd/yyyy) _____ HBI FBI

Survey Location(s) _____

Sampling Procedure _____

Less than 100 organisms were found – List Dominant Genera, etc.:

Genus _____	Number Found _____	HBI Score _____
Genus _____	Number Found _____	HBI Score _____
Genus _____	Number Found _____	HBI Score _____

More than 100 organisms found – Attach taxonomy bench sheet or other analyses

Other Biological Data/Observations – Use Attachment E, if necessary

There is diffuse flow through a wetland area. A fairly steep drop along the river bank (10-12 feet) prevents any fish movement from the Yellow River into this wetland.

Interpretations Based on Existing Fish and Aquatic Life Community – Use Attachment F, if necessary

WATERSHED DATA AND OBSERVATIONS – Optional (Please answer to the best of your ability. Estimates are acceptable.)

Approximate Area _____ Acres Square Miles

Land Use: Crop Land _____% Pasture _____% Forest _____%

 Grass Land _____% Urban _____% Wetland _____%

Number of Feedlots/Barn Yards Near Stream _____

Other Nonpoint Sources _____

Fish and Aquatic Life Use Designation Summary

Form 3200-121 (12/04)

Page 5 of 6

Water Body Name	WBIC #	Date
Yellow River	2154500	02/15/2005

WATERSHED DATA AND OBSERVATIONS (continued) – Use Attachment G, if necessary

Is this watershed currently or proposed to receive nonpoint source management under a State, Federal or local organization?

No Yes List Date(s) (mm/dd/yyyy) _____

Explain _____

Discuss nonpoint source impacts and controllability, and nonpoint relationship to fish and aquatic life existing and attainable uses. Include factors such as bank erosion, land cover/use near stream, gully erosion, barnyards, etc. (attach additional sheets if required):

VTAL/TFAL Justification – Required – Use Attachment H, if necessary

Note: This section must be completed when the use designation is tolerant fish and aquatic life (formerly LFF) or very tolerant aquatic life (formerly LAL)

Recommended Attainable Use Designation: TFAL VTAL

Tolerant Fish and Aquatic Life and Very Tolerant Aquatic Life use designations (LFF & LAL) are not defined as full fish and aquatic life uses. However, these uses are in most cases the best use that can be attained by these resources due to habitat or water quality limitations. A designated use recommendation into one of these sub-categories must be based on one or more of the following factors (sec. 283.15, Stats.). Check all that apply to this use designation and provide a brief description of the situation:

- a. Naturally occurring pollutant concentrations prevent the attainment of a full fish and aquatic life community.
- b. Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of a full fish and aquatic life community, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating water conservation requirements.
- c. Human caused conditions or sources of pollution prevent the attainment of a full fish and aquatic life community and cannot be remedied or would cause more environmental damage to correct than to leave in place.
- d. Dams, diversions or other types of hydrologic modifications preclude the attainment of a full fish and aquatic life community, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of a full fish and aquatic life community.
- e. Physical conditions related to the natural features of the water body, such as the lack of proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of a full fish and aquatic life community.

Description:

There is diffuse flow through a wetland, with no potential for fish use.

Prepared By

Preparer Signature	Printed Name	Date Prepared
	Craig Roesler	02/15/2005

Fish and Aquatic Life Use Designation Summary

Form 3200-121 (12/04)

Page 6 of 6

Water Body Name	WBIC #	Date
Yellow River	2154500	02/15/2005

Author and Peer Review

The author should submit a peer-reviewed report to Watershed Program Coordinator for review and approval.

Submitted By	Date
Peer Reviewed By	Date

Approval Signatures

Review, approval, and signature by the Watershed Program Coordinator (Expert), Regional Water Leader (or designee) as well as the Water Quality Standards Section Chief (or designee) is required.

Printed Name of Watershed Program Coordinator (Expert)	Watershed Program Coordinator (Expert) Signature	Date
Printed Name of Regional Water Leader (or designee)	Regional Water Leader (or designee) Signature	Date
Printed Name of Water Quality Standards Section Chief (or designee)	Water Quality Standards Section Chief (or designee) Signature	Date

Final Report Distribution List

Once the Use Designation Report has been approved by the Water Quality Standards Section Chief (or designee), the report can be distributed to the appropriate individuals, as listed below. Please indicate below individuals who should be copied on final report distribution. It should be noted that the classification recommendation in the report does not become official until it is approved by the Natural Resources Board and adopted into Wisconsin Administrative Code.

Facility Contact _____

Basin Engineer _____

Basin Planner _____

Effluent Limits Calculator _____

Endangered Resources (when T&E Species Present) _____

Other Interested Parties:

1995 MONITORING DATA BELOW THE GILMAN WASTEWATER LAGOON OUTFALL

The effluent flow path below the Gilman wastewater lagoon outfall was examined on May 26, 1995. The outfall is located at N45° 09' 17.7", W90° 49' 23.2", just to the east of the south lagoon cell (figure 1). The effluent had a temperature of 15.8°C (60.4° F), a dissolved oxygen concentration of 9.5 mg/l, and a pH of 9.5. Flow initially entered a wetland dominated by reed canary grass. Flow quickly became diffuse and the wetland type shifted to an alder and ash swamp. About half way to the river, the ground surface became rock strewn and flow became subsurface. This area was dominated by balsam fir, yellow birch, red maple and ash. Effluent emerged as multiple seeps along the bank of the Yellow River at site 1 (N45° 09' 08.5", W90° 49' 16.2"; figure 1).

Macroinvertebrate samples were collected in the Yellow River 100 yards above and 100 yards below the entrance of effluent. Flow was estimated at 38 cfs. The water was moderately stained, had a temperature of 16.0° C (60.8° F), a dissolved oxygen concentration of 10.0 mg/l, and pH of 7.4. The upstream site had an HBI of 3.8 (very good) and a species richness of 31. The downstream site had an HBI of 2.4 (excellent) and a species richness of 23. No clear impacts of effluent on the Yellow River are indicated.



Region NOR County Taylor Report Date 11/1976 Classification LAL
 Water Body: Yellow River, Trib TO...
 Discharger: V. of Gilman 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)

- 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:

11/1976 - L. Hansen

Additional Comments/How to improve report:

- LAL by "default" b/c of designated as diffuse SW.
- Old Report w/ little data

Department of Natural Resources
INTRA-DEPARTMENT
MEMORANDUM

..... Spooner

Station

Date..... November 30, 1976.....

IN REPLY REFER TO: 3200

TO: Anthony S. Earl

FROM: Lowell G. Hansen

SUBJECT: Surface Water Classification (NR 104) - Gilman, Taylor County

The Village of Gilman, located in western Taylor County, discharges treated wastewater from a two-cell stabilization lagoon. The effluent is piped to a low open meadow just east of the town road adjacent to the lagoon. The effluent flows easterly, in a poorly defined channel two to four feet wide, 20 yards across the meadow to a wooded area. In the wooded area, the effluent disperses forming several small channels of one foot or less in width and many small pools.

During a field investigation, on August 15, 1975, the effluent flow could be traced 50 yards into the wooded area. Beyond that point there was much standing water but it was probably the result of the high water table and not accumulated wastewater.

The Gilman wastewater treatment lagoon is approximately 1/4 mile from the Yellow River. The effluent will probably reach the Yellow River under conditions such as high runoff, when seepage is minimal.

A map and photographs are attached.

RECOMMENDATION

The meadow and wooded area receiving treated wastewater from the Gilman stabilization lagoon shall be classified as "diffused surface water" (NR 104.02 (1)(b)) and shall be placed in the "marginal surface water" category (NR 104.02 (3)(b)).

The Yellow River shall meet fish and aquatic life standards (NR 102.02).

By Ted R. Smith
Ted R. Smith

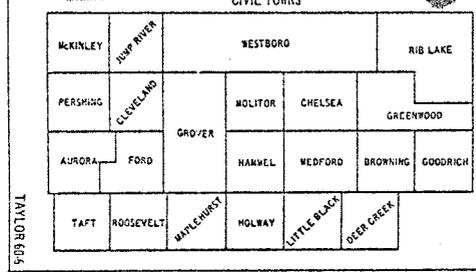
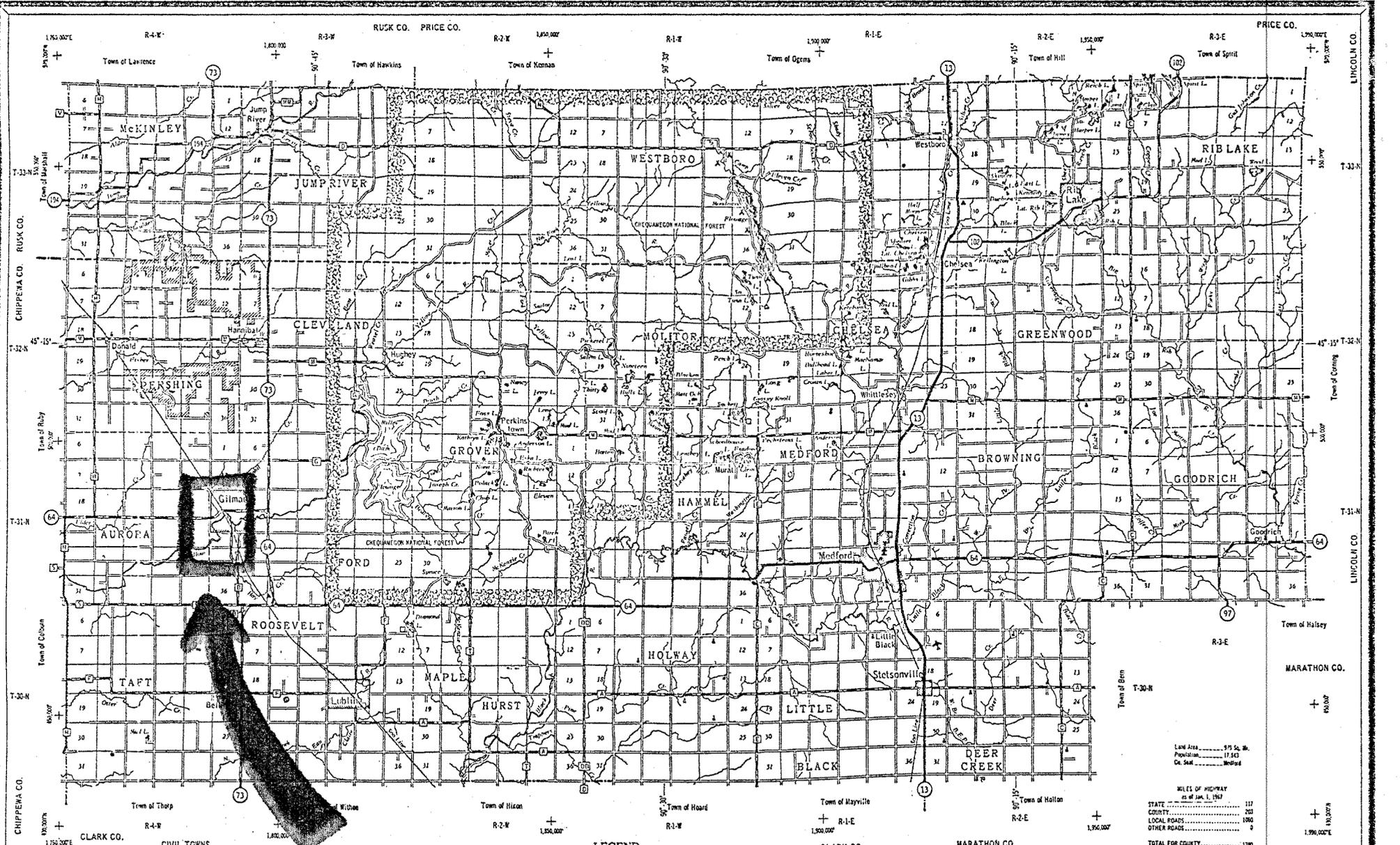
TRS:pap

APPROVED:

Danny J. Ryan 12/24/76
Danny J. Ryan Date

NOTED:

_____ _____
Date



LEGEND

Portland Cement	U.S. & STATE	Highway Separation	Corporate Limits	Public Camp & Picnic Grds.
Brum Concrete	COUNTY	Interstate Highway No.	Hot & State Farms	State Park
Blumwood		U.S. Highway No.	Airport	County or City Park
Gravel		State Highway No.	Fish Hatchery	Wayside
Earth		County Hwy. Letter	County Seat	Game Farm
*Town Road		Railroad - Single	University Village	
Fire Lane		Railroad - Double	Schools	
Mulchins Divided		Railroad Tunnel	Public Hunt or Fish Grds.	
Freeway		Can	Hospital	
Interchange		State Boundary	Lookout Tower	
		County Boundary	Ranger Station	
		Cell Tower Boundary		

*Surface types on town roads not shown.

+ Grid based on Wisconsin coordinate system, central zone.

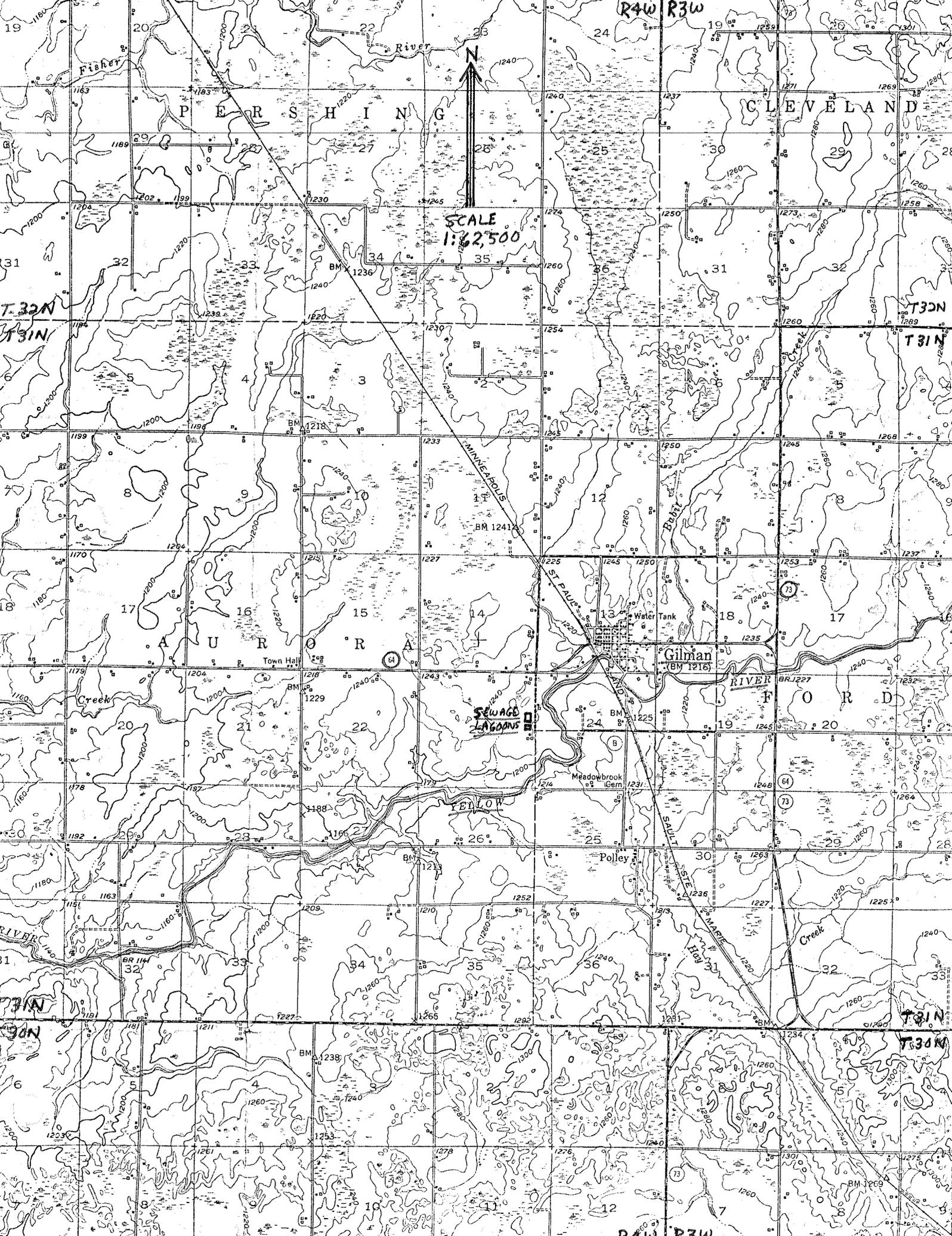


Land Area 975 Sq. Mi.
 Population 17,543
 Co. Seat Medford

MILES OF HIGHWAY
 as of Jan. 1, 1967
 STATE 117
 COUNTY 253
 LOCAL ROADS 1,060
 OTHER ROADS 8
 TOTAL FOR COUNTY 1,338

TAYLOR CO.
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 STATE OFFICE BUILDING
 Madison, Wisconsin

SCALE 1" = 10 MILES
 Corrected to
 JAN. 1969
 Compiled from U.S.G.A. Data
 Based on Aerial Photographs



SCALE
1:62,500



MINNEAPOLIS

SEWAGE LAGOONS

R4W R3W

19

20

22

24

19

20

21

31

32

33

34

35

36

31

32

33

34

35

18

17

16

15

14

13

12

18

17

16

15

30

29

28

27

26

25

24

23

22

21

20

31

30

29

28

27

26

25

24

23

22

21

31

30

29

28

27

26

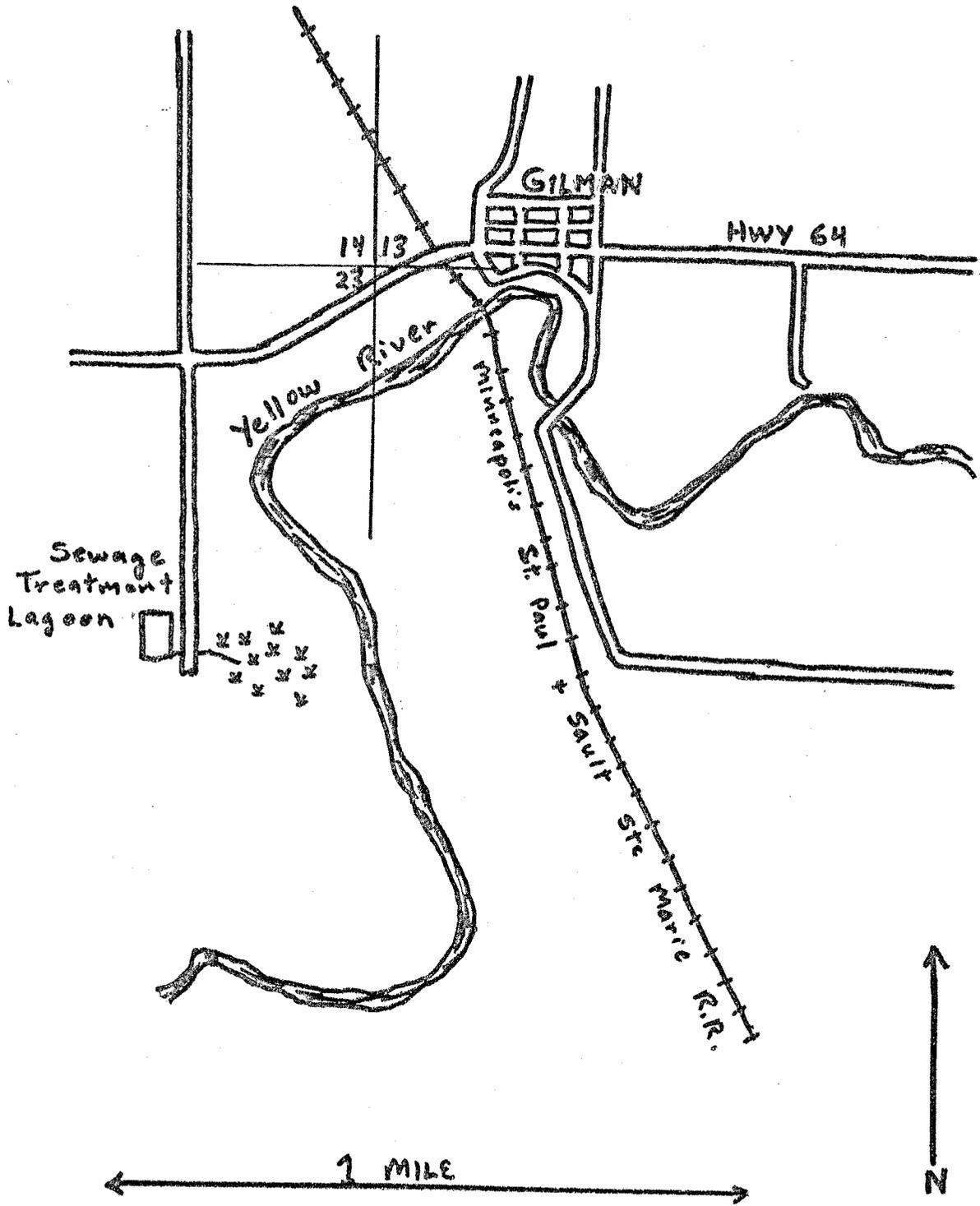
25

24

23

22

21





GILMAN

Sewage effluent disposal
area. Looking east
from sewage lagoon dike.
(Aug. 1975)



GILMAN

Sewage outfall pipe.
Approximately in center of
above photo. (Aug. 1975)