

Region NER County Ford du Lac Report Date Aug 1975 Classification LAL for marsh, LFF for tributary (reclassified from LAL)

Water Body: Gallagher Marsh and Brandon Tributary to Gallagher Marsh

Discharger: Brandon 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 ~~(comment)~~
- 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 (Sludge is mentioned)
- 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) Used a D-frame net to sample tributary upstream and downstream of WWTP. Tadpoles, snails upstream. Tubifer downstream. Snails, damselflies further downstream.
- Chemical Data (temp, D.O., etc.) None. *lacks detail on sample methods. Not Thorough. Didn't catch any fish with net. Proper sampling technique?*
- Physical Data (flow, depth, etc.) "Higher than normal" flow when surveyed. But what is normal??
- Habitat Description Marsh: open marsh with sedge and willow. Tributary: banks of reed canopy grass. Some of bottom covered with sludge. Riffles/pools? Substrate? Missing information. Cover?
- Site Description/Map Good description of how part of the stream goes underground, etc. Maps included.
- Other: _____

Historical Reports in file:

- Memo from Michael Reif to Mark Starek re: reclassification of Brandon Tributary, 1.25 p., June 2000
- Wastewater Receiving Stream Classification Report dated August 1975, 1/2 page long
- Three maps (2 from 1975, one from 2000)
- Three photos (from 1975)

Additional Comments/How to improve report:

The tributary was initially classified as an "effluent ditch" (1975) and later reclassified as limited forage fishery (though no fish were observed). It receives water from sewage plant effluent, a storm water sewer, and surface runoff. Based on comments in 2000 that recent rains resulted in higher flow, it is not clear what percent of flow each of these sources provides.

If surface runoff is significant, the "effluent ditch" or low flow conditions may not be met. Actual flow data would be helpful. Was the ditch ever dry before the WWTP was built?

To: Diane Fiegel

CORRESPONDENCE/MEMORANDUM

DATE: June 20, 2000

FILE REF: 3400

TO: Mark Stanek, DNR Wastewater Engineer-Oshkosh

FROM: Michael Reif, DNR Wastewater Specialist-Oshkosh *MR*

SUBJECT: **Reclassification of Brandon Tributary to Gallagher Marsh**

JUN 21 2000

On June 7, 2000 Mark Stanek, DNR Oshkosh Wastewater Engineer and Michael Reif, DNR Oshkosh Wastewater Specialist conducted an evaluation of the Tributary (called the Brandon Tributary to Gallagher Marsh for the purposes of this memo) that flows from above the Brandon WWTP south and southeast to Gallagher Marsh (a stream distance of about 2.4 miles measured with a map measurer from the USGS Topographic Map of Brandon). A copy of the Topographic Map with the Tributary section surveyed is attached.

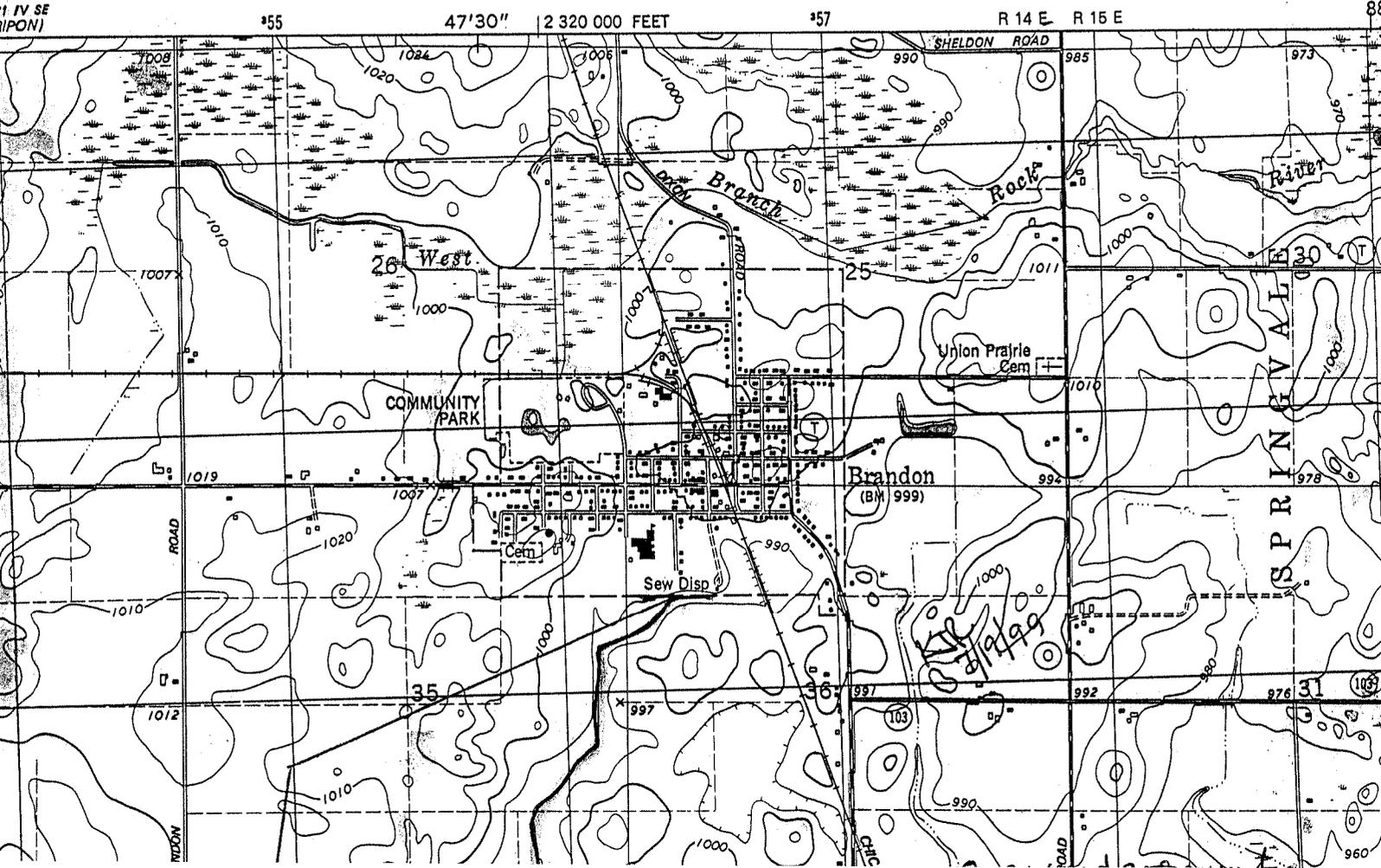
The Tributary was evaluated visually and with a D-frame net from immediately above the Brandon WWTP outfall and at several locations down to where the Tributary goes under STH 49. Recent rains have resulted in the Tributary flow being significantly higher than normal flow. However, conditions were satisfactory to conduct an evaluation of the Tributary. Much of the initial 1.5 miles of Tributary has been dredged in the past. At about 1.5 stream miles the Tributary goes underground. The 1975 Stream Classification (see file-Classification done by Dennis C. Weisensel, District Biologist, and James L. Mazanet, District Engineer) indicated that the stream goes into an underground tile at that point. It goes underground a distance of about 1/3 mile before it surfaces just before the HWY 49 roadside ditch. We were not able to observe evidence (looking upstream from HWY 49) that the farm field the Tributary flows under was ever modified. It was cropped over the top of where the Tributary likely flowed. After the Tributary flows under HWY 49 it appears to flow about 3/4 mile to where it enters Gallagher Marsh (the marsh appeared to be a fairly open wetland at that point dominated by sedge and willow-a further evaluation of the marsh is needed to clearly define it if that route is necessary). It was difficult to evaluate if all or only some of the flow went overland below HWY 49.

The upper 1.5 miles of Tributary appears to have stream banks primarily dominated by reed canary grass. Above the WWTP the Tributary water was brownish in color likely due to the marsh conditions. We found many tadpoles as well as a large number of snails above the outfall. Below the outfall at a distance of about 75 feet where a road has been constructed over the Tributary (see attached photos) we observed a large amount of sludge which had obviously come from the WWTP. A tubifex worm was observed in this sludge below the road. A few hundred feet below that we observed no sludge and natural stream bottom with a large population of snails and some damselflies. We observed similar conditions in the Tributary immediately above HWY JJ. Immediately below where the Tributary comes out of the ground (immediately above the HWY 49 roadside ditch) I observed a large population of blackflies in the swiftly flowing water.

I attempted at all locations to observe and catch (with the D-frame net) any fish that might be there. I didn't observe or catch any. However conditions appear satisfactory for the existence of a forage fishery and it is my conclusion that if effluent quality was sufficient that a forage fishery could be sustained in the Tributary. Therefore I am reclassifying the Tributary as **Limited Forage Fishery** and recommend that the effluent limits for the Brandon WWTP be set accordingly. The average daily flow from the WWTP is

listed as 0.100 MGD for 2000 and projected to be 0.140 for 2020 (Kunkel Engineering Group, LLC). The discharge of these flows to Gallagher Marsh are much lower than the clearwater flows discharged through the plant and the stormwater inputs into the Tributary.

BRANDON QUADRANGLE
WISCONSIN
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 FOX LAKE 15' QUADRANGLE



Brandon, Fond du Lac County

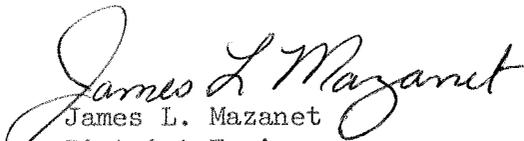
Wastewater Receiving Stream Classification

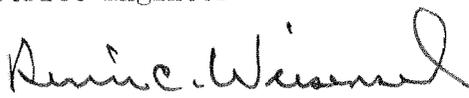
Survey Date: 8-6-75

The Village of Brandon operates an activated sludge wastewater treatment plant. Effluent from the plant is discharged to a ditch. This ditch carries sewage effluent, storm water from a storm sewer located upstream from the sewage treatment plant and some surface runoff. The effluent flows down the ditch for 1 1/2 miles and then travels through an underground tile for about 1/3 mile. The tile surfaces just west of State Highway "49" and the effluent then flows through corn fields for about 3/4 mile to Gallagher Marsh.

Recommendations

The stream shall be classified as an effluent ditch from its origin to State Highway "49". From State Highway "49" to Gallagher Marsh it shall be classified as diffused surface water. Gallagher Marsh shall be classified as a wetland.


James L. Mazanet
District Engineer


Dennis C. Weisensel
District Biologist

JLM:DCW:sh

STH '49'

BRANDON

STP

STH '103'

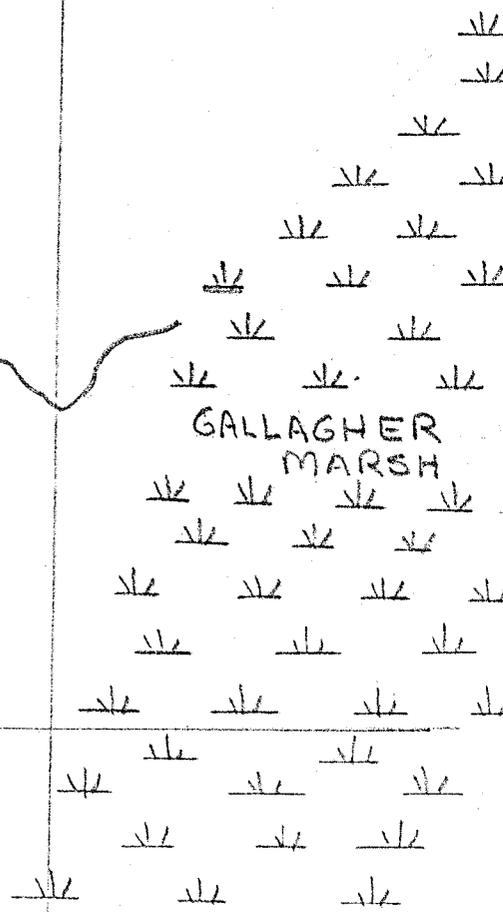
STH '49'

CTH 'JJ'

TILE



GALLAGHER
MARSH





Brandon effluent ditch at the Brandon
STP looking downstream.



Brandon ditch looking downstream from
County "JJ".



Water flowing through cornfields east of
State Highway "49". Gallagher Marsh is
in background.