

Region NOR County IRON Report Date 1975 Classification LFF
Water Body: Vaughn Creek
Discharger: Saxon STP

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: _____

Historical Reports in file:

1975

Additional Comments/How to improve report:

need more information

Bub, Laura A

From: Jaeger, William C
Sent: Thursday, October 24, 2002 10:11 AM
To: Watson, Susan S; Stubbe, Pamela J; Koshere, Frank J; Bub, Laura A; Franson, Lonn J
Subject: RE: Saxon S.D. - Vaughn Creek Stream Class

I think this is a good plan for this classification and for this permit round.

Bill Jaeger
Water Quality Biologist
Wi. Dept. of Natural Resources
107 Sutliff Ave.
Rhineland, Wi. 54501
(715)365-8971
Fax: (715)365-8932
Email: jaegew@dnr.state.wi.us

From: Franson, Lonn J
Sent: Wednesday, October 23, 2002 3:06 PM
To: Watson, Susan S; Stubbe, Pamela J; Jaeger, William C; Koshere, Frank J; Bub, Laura A
Subject: RE: Saxon S.D. - Vaughn Creek Stream Class

I agree this appears to be a phase II from my perspective. As for the classification and how appropriate limits would be calculated, there would need to be a determination if the discharge through variance section would have an impact on the cold water section. Thus we would be looking at a situation of imposing the most restrictive, environmentally protective. For example if the variance stretch was less restrictive than the full fish the full fish limits would take precedence over the variance reach. Is the variance through an extensive wetland drainage prior to seeing channized flow? What is the travel distance and time? etc.? Thus it is important to get an idea, and it is subjective, to make a determination if the full fish is impacted. In addition because they have secondary limits because of the fill and draw discharge during periods of high flow, this needs to be documented somehow to justify those secondary limits. Essentially what would great would be some Q7,10 values for those months we have allowed the discharge at secondary limits.

FYI I have drafted a limit memo of sorts saying to re-issue the permit as is and we'll deal with it later because the appropriate classification issue resolved. <<File: 02 memo.doc>>

Hope this works for everyone.
Lonn

From: Stubbe, Pamela J
Sent: Tuesday, October 22, 2002 11:33 AM
To: Watson, Susan S; Bub, Laura A
Cc: Jaeger, William C; Koshere, Frank J
Subject: Saxon S.D. - Vaughn Creek Stream Class

Greetings,

The receiving water - Vaughn Creek, Iron County - for Saxon Sanitary District (WPDES Permit #WI-0031704-5) is currently classified as Full Fish & Aquatic Life - Coldwater sportfish communities. The discharge-receiving channel in the headwaters to Vaughn Creek is proposed to be classified as Limited Forage Fish based on a 1975 report with minimal detail. Bill & I visited the site on 11 October 2002. The channel was wet with an estimated flow of 0.98cfs using a Marsh-McBurney Flo-Mate (1975 report - no flow). Unfortunately, the backpack shocker was not operable so we were not able to assess the fish community.

We have some concerns regarding the LFF classification:

1. Where would the LFF class end and the coldwater class begin?
2. The discharge will eventually enter the Bad River and classification changes will probably be highly scrutinized.
3. Data are minimal at this time.

Therefore, we believe that this case should be deferred to Phase II of the rule update. In the interim we would return to Vaughn Creek and the channelized area during low-flow periods (next year) and comprehensively assess the sites.

Pamela J. Stubbe

DATE: October 21, 2002

FILE REF: 3400

TO: Susan Watson - Rhinelander

FROM: Lonn Franson

SUBJECT: Saxon Sanitary District WQBEL's

This memo is in response to your request of WQBEL's for Saxon S. D. and it is my recommendation to re-issue the permit with the existing permit limitations without further WQBEL review. It is noted that only ammonia was requested for evaluation. Metals were not requested for evaluation. The facility is: designed for 14,000 gallons per day, there is no public water supply, only domestic wastewater is treated by this stabilization ponds system, and it is reasonable to assume that any metals detected would not have been at a level of concern.

There are several issues that do not make a current WQBEL review practical at this time. The first is the water classification of the receiving water as there is no historical data or documentation available to determine what the proper classification should be to establish or review limits. The field work necessary to make such a determination will not occur this fall. In addition this outfall location's receiving water location is subject to the scrutiny of the NR 104, code revision process. As ammonia was the only pollutant requested for review, the facility is not in the facility planning process and the current toxicity criteria for ammonia is under department review, review of an ammonia WQBEL at this time would provide no value to the facility or the department.

As the historical facility construction was approved by the department and was ultimately issued a permit, it should be assumed that the existing permit limits previously recommended by department staff are protective of the downstream water resource although documentation for these decisions does not exist. Until such time the receiving water is formally classified by current department staff with proper documentation a recommendation or review of WQBEL's cannot be performed.

Cc: Chuck Olson – Ashland
Bob Masnado – WT/2
Jim Schmidt – WT/2

PERMIT TO DISCHARGE UNDER THE
WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 147, Wisconsin Statutes,

SAXON SANITARY DISTRICT NO. 1

is permitted to discharge from a facility located at

NE 1/4, SECTION 1, T46N, R1W, SAXON, WISCONSIN

to VAUGHN CREEK IN IRON COUNTY

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit shall become effective on the date of signature.

This permit to discharge shall expire at midnight, September 30, 1992.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit in accordance with the requirements of Chapter NR 200, Wisconsin Administrative Code, at least 180 days prior to this expiration date.

State of Wisconsin Department of Natural Resources
For the Secretary

By David A. Jacobson
David A. Jacobson
District Director

Dated 7/18/88

0105d

B. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR A FILL-AND-DRAW DISCHARGE

During the period beginning on the effective date of this permit and lasting until September 30, 1992 the permittee is authorized to discharge from outfall serial number 001 during April through May and October through November of each year when the flow of the receiving stream is high.

Samples taken in compliance with the monitoring requirements specified below shall be taken at the effluent control manhole after the secondary stabilization ponds.

There shall be no discharge of visible or floating solids in other than trace amounts.

During any 30 consecutive days, the average effluent concentrations of BOD₅ and of total suspended solids shall not exceed 15% of the average influent concentrations, respectively.

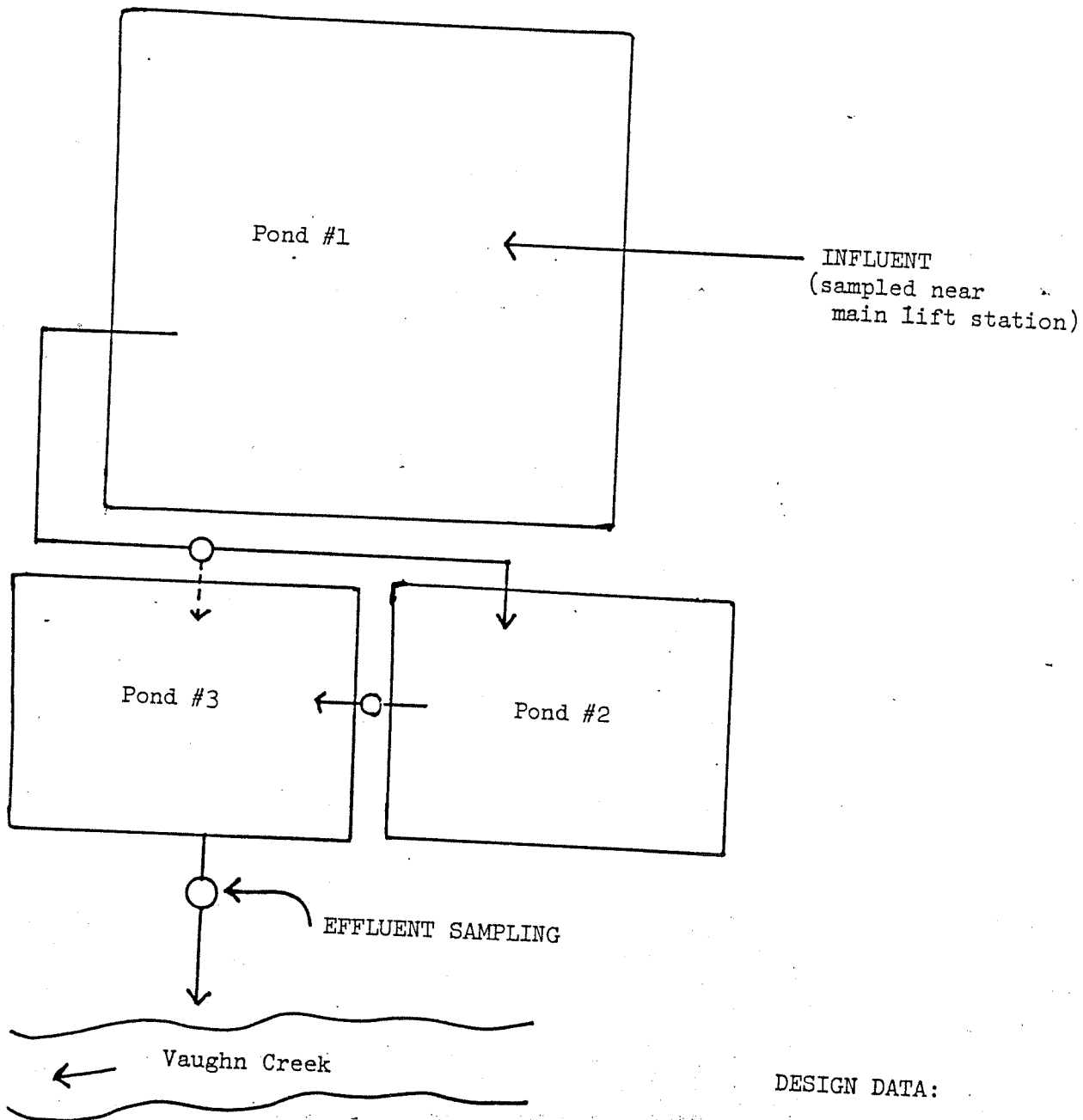
Effluent disinfection is not required if the wastewater is held in the treatment system for 180 days or more.

EFFLUENT PARAMETERS	EFFLUENT LIMITATIONS						MONITORING REQUIREMENTS	
	Quantity-kg/day(lbs/day)			Other Limitations (Specify Units)			Sample	Sample
	Average	Maximum	Minimum	Average	Maximum		Frequency	Type
Flow (daily)	-	-	-	-	0.085 MGD ¹		Continuous	during Discharge
BOD ₅ (monthly)	-	-	-	30 mg/l	-		1x Weekly ²	Grab
BOD ₅ (weekly)	-	-	-	45 mg/l	-		1x Weekly ²	Grab
Suspended Solids(monthly)	-	-	-	30 mg/l	-		1x Weekly ²	Grab
Suspended Solids (weekly)	-	-	-	45 mg/l	-		1x Weekly ²	Grab
pH	-	-	6.0 s.u.	-	9.0 s.u.		1x Weekly ²	Grab
Dissolved Oxygen (daily)	-	-	4.0 mg/l	-	-		1x Weekly ²	Grab

¹ This maximum discharge rate is equal to 6 times the facility design flow of 14,000 gallons per day. It is based on discharging 180 days stored wastewater over a 30 day period.

² The permittee shall notify the Department Area Engineer at least 7 days prior to an anticipated discharge. The pond contents shall be sampled prior to any discharge to assure that adequate stabilization has taken place. Monitoring frequency shall be 1x weekly during the discharge period. Fill and draw discharges must take place over 30 to 60 days to prevent hydraulic or organic overloading of the receiving water.

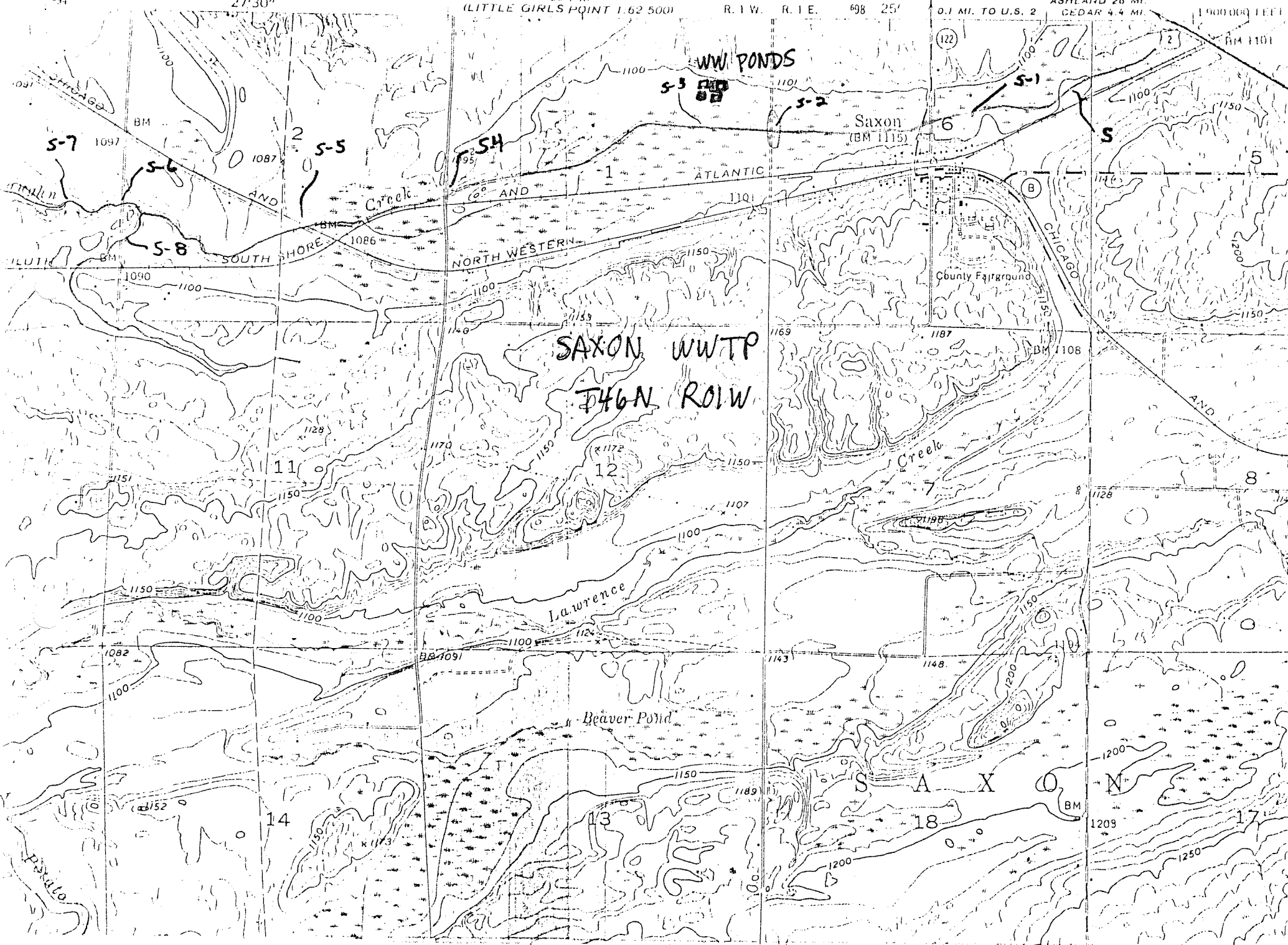
C. SAXON WASTEWATER TREATMENT FACILITY - FLOW DIAGRAM



DESIGN DATA:

Flow: 14,000 gallons per day
BOD₅: 30 lbs/day (estimated)
Suspended Solids: 33 lbs/day (estimated)

---> = alternate piping pattern



SAXON, IRON COUNTY

Wastewater Receiving Stream Classification

The community of Saxon has a septic tank system which discharges to a dug ditch in a swamp in Section 6, T46N, R1E. This dug ditch traverses Section 6 and continues across Section 1 (T46N, R1W) with the drainage eventually forming the natural channel of Vaughn Creek in Section 2.

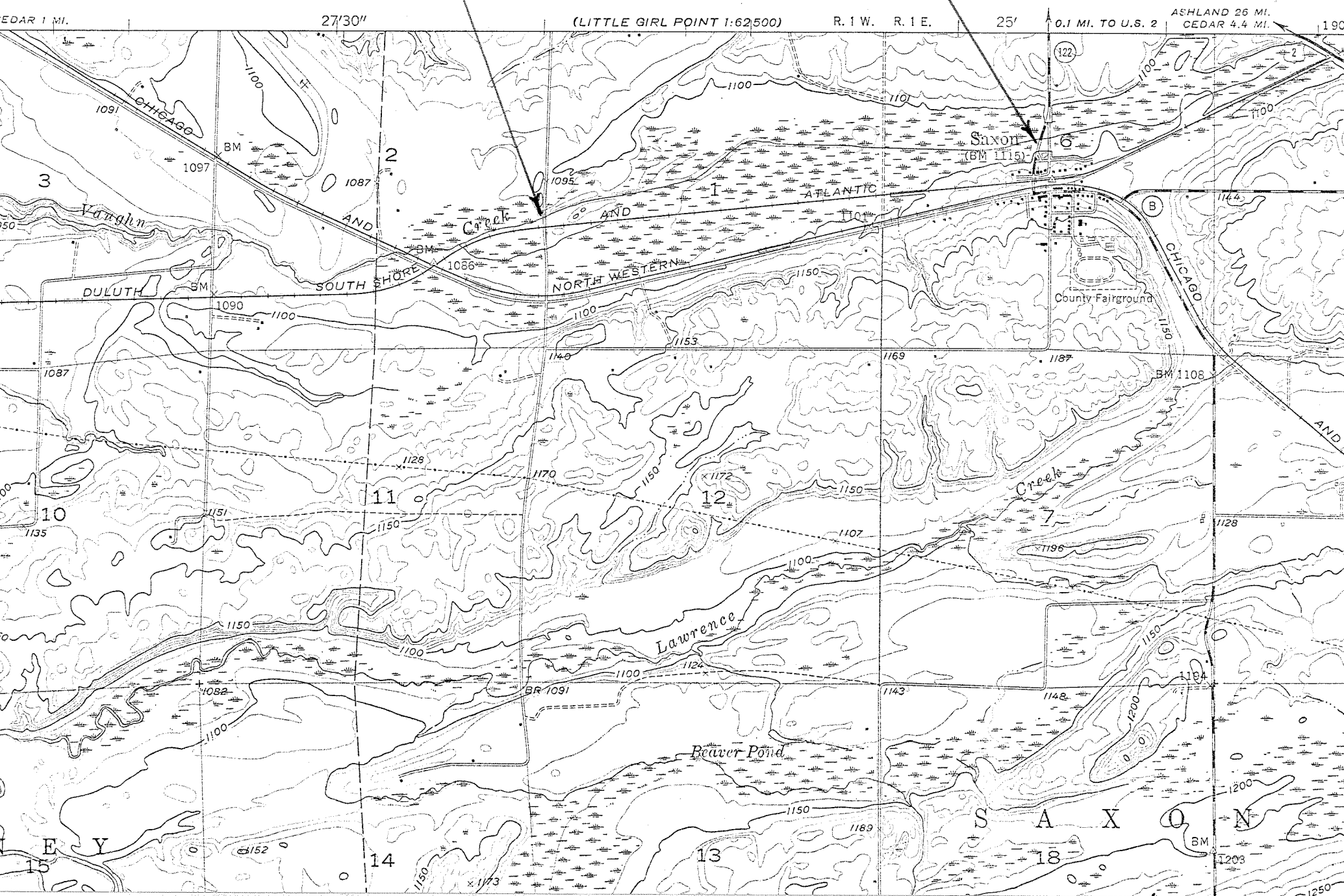
Vaughn Creek is considered a Class II trout stream for its entire length in Iron County. A fish management investigation in 1965 showed the presence of native brook and rainbow trout although no shocking operations were conducted above the road crossing between Sections 2 and 3. A field investigation on September 4, 1975 revealed that the upper section of Vaughn Creek is characterized by intermittent flow. The attached picture shows the channel crossing between Sections 1 and 2 to be dry on that date.

Recommendations:

The dug ditch representing the headwaters of Vaughn Creek in Section 6, T46N, R1E, and Section 1, T46N, R1W, shall be classified as a "non-continuous stream" with a subcategory of "intermediate aquatic life".

RIOR

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Dug ditch channel of the
upper reaches of Vaughn Creek at
road crossing between Sections 1 & 2, T. 46 N., R. 1 W.

Dry - Sept. 4, 1975