

Region NER County Outagamie Report Date _____ Classification _____

Water Body: _____

Discharger: _____

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:

Additional Comments/How to improve report:

Duck Creek -

Currently Codified.

- a) • ditch leading from STP to trib of Duck Creek
- b) • trib to duck creek @ Freedom School
- c) • Duck Creek Upstream from CTH+J

LAL ^{Drop Delete}
 LAL ^{Drop Delete}
 (LFF) ?

Documentation:

9.21.79

Weisenel: Duck Creek, near V. of Isaac
 • from origin downstream to Linsmeyer Rd
 • Linsmeyer Rd to 1st trib in S. 26
 • remaining

LAL
 LFF
 PAL

5.28.76

Hildreth / Weisenel: Freedom SD

- Duck Creek @ Hwy 55 bridge to CTH J bridge
- CTH J to Sacred Heart Seminary WWTP

LFF (?)
 LFF

S. 26.76

Hildreth / Weisenel: Sacred Heart Seminary

- Duck Creek @ Sacred Heart Seminary WWTP to Green Bay

PAL

S. 26.76

Hildreth / Weisenel: Freedom Grade School

- ditch from WWTP to Trib to Duck Creek

LAL (ED)

IN CODE

- Trib to Duck Creek
- Duck Creek @ confluence w/trib + downstream 1³/₄ mi to Freedom Sanitary District

LAL
 LFF

11-29-79 Walsensel: Dude Creek near Isaar

same as
9/79 report

- from origin downstream to Linsmeyer Rd
- from Linsmeyer Rd to 1st trib in S. 26
- remaining

LAL

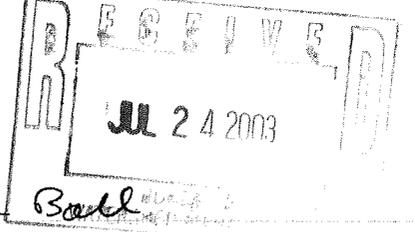
LFF

FAL

6-3-82 T. Doelger: Dude Creek

- entire Dude Creek

FAL



Comments: Duck Creek Classification - Joe Buhl

From the limited description of the stream it appears the Fish & Aquatic Life class. may be correct. (In the previous class. - what is Fish & Aquatic Life "wildlife area"?) However several questions remain:

1. I assume the effluent from Freedom goes downstream what is the classification downstream from Freedom? The upstream classification may indicate the downstream class. should also be Fish & Aquatic Life. However, it should be documented, not assumed.
2. No mention is made of the current flow compared to low flow conditions. The flow on June 3 may be considerably higher than normal and influence the classification.
3. No water quality data was supplied. D.O. in a slow moving stream like Duck Cr. may be a factor. Although, the fish found indicate no problem.
4. The station numbering does not correspond to the written descriptions. This kind of a mistake indicates poor attention to detail and makes the entire classification subject to question.

5. Summary - this classification may not be sufficient to justify a fish & aquatic life ~~area~~ designation - at least not legally.

Bub, Laura A

From: Bub, Laura A
Sent: Monday, August 25, 2003 11:00 AM
To: Haack, Jeffrey J
Cc: Vogen, Linda K; Masnado, Robert G
Subject: NER corrections

Hi Jeff,

Thanks for your phone call and comments the other day regarding the spreadsheet that I sent out. I just wanted to let you know what actions I've taken, so that if I've misinterpreted your concerns in any way you can let me know. Here's what I've done so far:

- #29: Tecumseh--LAL/LAL--**NO change**
- #156: Oconto River--noted that this **change should be moved to Phase 2** due to the impact the new effluent limits would have on the POTW.
- #159: Oneida Co--incorrectly identified as NER--**moved to Northern Region**
- #160: Bear Creek--**changed current classification from LAL to LFF**. This change results in no proposed change in the classification.
- #164: you noted that there was an error in the current classification, which the spreadsheet lists as LAL. When I look in current NR 104 (#52 on the LMD table) the LAL classification appears to be correct. So, I've **left that entry as is, including the proposed change to an LFF classification**. The second part of that listing, Greenville SD, does not appear on the spreadsheet, appearing to be a deletion, as you noted should occur.
- Duck Creek @ Freedom S.D.: the Freedom Elementary School classifications for the effluent ditch and trib have been dropped and deleted. To Phase 1, I have **added the Freedom S.D. classification for Duck Creek** (current LFF/proposed LFF) [not sure how this got left out]. This site likely should have an FAL classification, which will be dealt with in Phase 2.

I believe that these were all of the changes that you identified. If any of this is not correct, or if you come across more, please let me know. Thanks so much for your attention to this--I appreciate it!

Laura

Bub, Laura A

From: Bub, Laura A
Sent: Wednesday, July 23, 2003 10:49 AM
To: Bub, Laura A
Subject: FW: Freedom - Duck Creek

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

From: Bub, Laura A
Sent: Wednesday, July 23, 2003 10:49 AM
To: Vogen, Linda K
Cc: Masnado, Robert G; Corbett, Mark K; Haack, Jeffrey J; Reyburn, James R
Subject: RE: Freedom - Duck Creek

Hi Linda and others-

Thanks for the question--this site seems to be a confusing one (for me, anyhow). Since the last string of e-mails (here's a

_____)
RE: Duck Creek Use

Designation...) I've taken another look at the details of this site.

Here's what I've figured out so far...

- "Tributaries and Duck Creek, Freedom Elementary School" are currently codified in NR 104 (Table 5, #16) as:
 - Ditch leading from the STP to the tributary of Duck Creek: **LAL** (effluent ditch)
 - Tributary to Duck Creek at Freedom Elementary School: **LAL**
- "Tributaries and Duck Creek, Freedom Sanitary District"
 - Duck Creek upstream from CTH J: **LFF**
- The above codified classifications come from a 1976 reports completed by David Hildreth and Dennis Weisensel.
- In our database of stream classifications, the first two classifications for Freedom School (the effluent ditch and the Tributary to DC) are listed as being drop-deleted, and it looks to me like Mark and Jeff concur with this, as the discharge is now going to a municipal system. So, these segments are removed from NR 104 in current Phase 1 revisions.
- However, it appears as though the Freedom Sanitary District segment (that you inquire about) is still a problem. As I mentioned in my previous e-mail, there is a report on file from Tim Doelger stating that all of Duck Creek (including this segment) should be classified as FAL. Jeff mentioned that he has notes from Joe Ball critiquing this report (I don't have these notes--Jeff, can you send/fax a copy of them to me?). As this segment currently stands, it's not listed in Phase 1 or Phase 2. And, strangely (?), it's not listed in our database at all, so I'm not able to identify if this omission is accidental, or is actually a "drop-delete" resulting from the T. Doelger memo. I do think that some additional current documentation for this site might be appropriate--clarifying whether it should retain the LFF classification, and be included (remain) in Phase 1 NR 104 revisions, or it should be FAL and dealt with in Phase 2.
 - According to the documentation that is currently in my file here, all of Duck Creek should be classified as FAL (Doelger, 1982). It sounds like this change in classification could be problem for the SD, so it should occur in Phase 2, and the LFF classification would remain in effect through Phase 1. If the Doelger recommendation ISN'T appropriate, then I need some updated documentation justifying this.

So, that's what I *think* I know about this site. And, to make a long story short, I don't know why Duck Creek at Freedom SD isn't on Phase 2, but, it sounds to me like it probably should be. If anyone has any other insight on this, let me know. I'd like to resolve this issue as soon as possible.

Thanks-
Laura

Laura Bub

Water Quality Standards Specialist
Bureau of Watershed Management
Wisconsin Department of Natural Resources
PO Box 7921, Madison, WI 53707
(608) 261-4385 (phone)
(608) 267-2800 (fax)
Laura.Bub@dnr.state.wi.us

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

From: Vogen, Linda K
Sent: Tuesday, July 22, 2003 1:03 PM
To: Bub, Laura A
Cc: Masnado, Robert G
Subject: Freedom - Duck Creek

Laura, I noticed Duck Creek at Freedom SD isn't on Phase 2. Do you know why not?

Bub, Laura A

From: Corbett, Mark K
Sent: Wednesday, May 14, 2003 11:36 AM
To: Haack, Jeffrey J; Bub, Laura A; Vogen, Linda K; Reyburn, James R
Subject: RE: Duck Creek Use Designation

Freedom School **was** Marginal Variance, and no longer exists as Jeff mentioned. So, the tributary can apparently be a Phase 1 change. But; the Freedom SD may potentially, be affected by FAL limit changes that may occur under upcoming Phase 2, which would be reflected in their Sept 2008 reissuance?

thanks, Mark.

 Mark K. Corbett, P.E.

ENGINEER

Wisconsin Department of Natural Resources-Oshkosh

625 E. Cty Rd Y, Suite 700

Oshkosh, WI 54901

(☎) phone: (920)424-4403

(☎) fax: (920)424-4404

(✉) e-mail: mark.corbett@dnr.state.wi.us

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

From: Haack, Jeffrey J
Sent: Wednesday, May 14, 2003 11:18 AM
To: Corbett, Mark K; Bub, Laura A; Vogen, Linda K; Reyburn, James R
Subject: RE: Duck Creek Use Designation

I believe that the "drop/delete" should apply only to #16a in NR 104, the "**Tributary** to Duck Creek at Freedom Elementary School" line in Table 5. (My emphasis.) That tributary was an LAL stream, and I understand that the school has connected their sewers to the municipal system. So this change can be made in Phase 1. But any change to Duck Creek itself, which is listed as LFF in the current NR 104, will have to be part of Phase 2, because it will necessitate more stringent effluent limitations for the Freedom POTW.

MY recommendations for the WPDES permit for the Freedom San. Dist. in the WQBEL evaluation are based upon the codified classification.

Tim Doelger's 1982 report primarily evaluated the creek upstream from Freedom, to the west. I've got some handwritten notes from Joe Ball attached to that report, in which Joe critiques that report. This leads me to believe that further documentation is going to be needed if we are to change the classification. But some of that documentation (of fish species present) is available from the fish kill in July 2001, which I reference in my WQBEL evaluation. (Obviously, if there were fish to be killed, then the stream has the potential to support some sort of fishery.) I'm not sure how much more documentation is needed, though.

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

From: Corbett, Mark K
Sent: Wednesday, May 14, 2003 10:07 AM
To: Bub, Laura A; Vogen, Linda K; Reyburn, James R; Haack, Jeffrey J
Subject: FW: Duck Creek Use Designation

Hi Laura

The existing and former permits contain *Limited Forage Fish limits* (former Intermediate Variance). It's referenced in; NR104.07(2)Table 5-LMD, listing(#16-b), *Noncontinuous Hydrologic, I Applicable Criteria-Intermediate*.

I don't have anything in the Freedom SD file, from Tim Doelger's 1982 stream classification, which recommended the FFAL class. So, I presumed it was being omitted from the NR104 Phase I revisions list, which would trigger the Fish and Aquatic Limits. At any rate, Jeff Haack just completed his WQBEL determination for the current issuance, which expires 9/30/03. Jeff continues to offer the LFF limits.

Jeff, Jim, Linda - What's your knowledge of this history?

Mark.

 *Mark K. Corbett, P.E.*

ENGINEER

Wisconsin Department of Natural Resources-Oshkosh

625 E. Cty Rd Y, Suite 700

Oshkosh, WI 54901

(☎) phone: (920)424-4403

(☎) fax: (920)424-4404

(✉) e-mail: mark.corbett@dnr.state.wi.us

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

From: Bub, Laura A

Sent: Tuesday, May 13, 2003 1:59 PM

To: Vogen, Linda K

Cc: Corbett, Mark K

Subject: Duck Creek Use Designation

Hi Linda and Mark,

In checking out some use designation questions over the past few days, I've come across an e-mail that was sent to me last May 13 (2002) from Linda, which I don't think that I ever responded to. I can't locate the original electronic version of the e-mail, but I do have the printed version of it. Basically, Mark had questioned why Freedom SD in Outagamie Co. (Duck Creek) was not listed in the current NR 104 Phase 1 revisions. I've done some checking into this site.

Our database lists Duck Creek at Freedom SD as a "drop-delete." That is, it is currently classified in code as LAL, but with Phase 1 changes, it was proposed to be dropped from the list, and by default, would be classified as FFAL. In the file of documents for this site, I **DO** have a Stream Classification Report done by Tim Doelger June 3, 1982 that recommends an FAL classification, thus prompting the "drop-delete." Please let me know what you think should be done with this site. As it stands now, *when* the Phase 1 revisions go through, The Freedom SD segment of Duck Creek would be codified as FAL.

I apologize for not getting back to you sooner on this.

Laura

Laura Bub

Water Quality Standards Specialist

Bureau of Watershed Management

Wisconsin Department of Natural Resources

PO Box 7921, Madison, WI 53707

(608) 261-4385

Laura.Bub@dnr.state.wi.us

Bub, Laura A

From: Vogen, Linda K
Sent: Monday, May 13, 2002 9:37 AM
To: Bub, Laura A; Masnado, Robert G
Cc: Corbett, Mark K
Subject: FW: Use Designation List

Mark raises a good question. Can you determine why Duck Creek is no longer on the list? I believe it should remain there for Phase 1.

From: Corbett, Mark K
Sent: Monday, May 13, 2002 9:00 AM
To: Vogen, Linda K
Subject: FW: Use Designation List

Linda - Didn't see Freedom SD POTW (WI-0020842) Outagamie Co. listed. They discharge to Duck Creek, in the Lower Fox Basin (LF05), which is currently LFF.

From: Vogen, Linda K
Sent: Thursday, May 09, 2002 8:53 AM
To: Crystal Olson; Gregory Sevener; James Reyburn; Jeffrey Haack; John Young; Mark Sesing; Mary Gansberg; Michael Reif; Scott Provost; Bruce Oman; David Gerdman; Gary Kincaid; James Savinski; Joseph Graham; Mark Corbett; Mark Stanek; Scott Szymanski; Mark DeBaker; Nan Jameson; Tom Tewes
Subject: FW: Use Designation List

One more chance to review proposed NR 104 changes.

From: Masnado, Robert G
Sent: Wednesday, May 08, 2002 5:25 PM
To: 'clarx@discover-net.net'; 'bsh@sand-creek.com'
Cc: Masnado, Robert G; Bub, Laura A; Gaumnitz, Lisa L; Larson, Roger L (DNR); Searle, Greg; LaLiberte, Paul J; Vogen, Linda K; Blake, Thomas M; Kreitlow, James D; Fratrack, James F
Subject: Use Designation List

Attached is a file that provides information on the proposed list of streams to be included in the revisions to Chapter NR 104 of the Wisconsin Administrative Code. The comment period for the proposed rule changes closed on May 1, 2002. The Department is currently reviewing comments received and will be making modifications to the proposed rule package where warranted. Following a thorough review, staff will once again seek permission of the Natural Resources Board to take the proposed rules to public hearings. If granted, the public will have an additional opportunity to comment on the proposed rule changes before the Department makes a final recommendation to the Natural Resources Board.

We are still working at getting this list on the Department's Web Site. In the meantime, please review it in its current form and let us know if you have any questions. You can contact either Bob Masnado @ (608) 267-7662 or Laura Bub @ 261-4385 for more information.



NR 104 Change List -
May 8, 2002.doc

✓RECORD NO: 262

BASIN CODE: 120

WSD NAME: DUCK CREEK

STRM/LAKE: DUCK CREEK

COUNTY: BROWN 05

FILE NAME: DUCK CREEK 120

FILE LOCATION: LMD - WQ FILE

DATE: JUNE 3, 1982

AUTHOR: TIM DOELGER

TITLE: STREAM CLASSIFICATION DUCK CREEK

PUBLISHER: DNR

STUDY TYPE: STREAM CLASS

FORMAT: REPORT

KEYWORDS: STREAM HABITAT RATING
FISH SURVEY

COMMENT:

mediate, continuous intermediate, and continuous fish and aquatic wildlife area, respectively. These sections are, with the exception of the first one, below where the current work was conducted.

Methods

The Stream Habitat Rating form was the method used to determine the classification. They are attached and should be referred to for more detail. Electro-fishing was used by Lee Meyers (Oshkosh Area). His results which are tabulated and in memo form are also attached.

Doelger From: Weisensel
Rasman *WPM* Note, Return
~~Hildreth~~ Follow Thru
Kazmierczak See Me
~~Hildreth~~

FILE 120
Duck Cr.
WPM

Stream Classification

Duck Creek

June 3, 1982

Tim Doelger

Introduction

As a part of the Lake Michigan District's Water Quality Assessment for FY 1983 and to provide current and additional data for possible updates and revisions to NR 104, a Stream Classification Survey was conducted on Duck Creek with stations located at Center Valley Road, CTH S, 1/4 mile west of Freedom, CTH S, one mile west of Freedom and on Fritch Road. These stations are numbered 1, 2, 3 and 4, respectively (see attached map). In addition, a pool at Center Valley Road one mile below Freedom was sampled by Fisheries personnel.

In May of 1976 Dave Hildreth and Dennis Weisensel performed four Stream Classifications on separate sections of Duck Creek. They were: A 1.75 mile section beginning approximately halfway between stations 3 and 4 and ending at the STH 55 bridge; the second section was between STH 55 and CTH J; the third was from CTH J down to the Sacred Heart Seminary in Oneida and the fourth from Oneida down to the mouth at Green Bay.

These were classified non-continuous intermediate, non-continuous intermediate, continuous intermediate, and continuous fish and aquatic wildlife area, respectively. These sections are, with the exception of the first one, below where the current work was conducted.

Methods

The Stream Habitat Rating form was the method used to determine the classification. They are attached and should be referred to for more detail. Electro-fishing was used by Lee Meyers (Oshkosh Area). His results which are tabulated and in memo form are also attached.

Discussion

Duck Creek is a 22 mile stream which drains approximately 82 square miles in Outagamie County. Land use in the watershed is predominated by agriculture, but with the area's location between the City of Green Bay and the Fox Valley it has experienced a recent increase in residential useage.

Soils in the watershed are generally silt loam types and are flat to gently rolling.

At Center Valley Road a variety of habitat exists. Upstream there is a run, a small riffle, and at the bridge a pool. Down stream the channel narrows forming a series of bends and runs. Stream banks are about evenly divided between shrubs and small trees providing a good buffer and pasture. Cows are afforded access in the pasture areas. Leeches, one mayfly and caddis flies were observed in the upstream riffle and minnows were present in the pool. Medium size rocks and rubble are the pre-dominate substrate in the pool and riffle. Water clarity was surprisingly good for a stream in this area. Flows were estimated at approximately 1 CFS.

Station #2, .25 miles west of Freedom on CTH S, is a large pool area extending for approximately 150 yards on either side of the bridge. I spoke with two fishermen at the bridge and was told that they often catch northernns in this area, but that panfish and bullheads make up the majority of the catch. Upstream from the bridge there is healthy vegetative cover composed of high grasses, shrubs and some mature trees. Downstream there is a limited pasture area. Water depths ranged from 1-3 feet.

At station #3, one mile west of Freedom, there is a small pool, pasture and farm yard upstream, while downstream the land remains fallow and wooded almost to CTH C. Minnows, crayfish and caddis flies were observed in the downstream section. Water clarity was again very good and flows appeared to be approximately 1 CFS.

Station #4 at Fritch Road was the most aesthetically pleasing of all

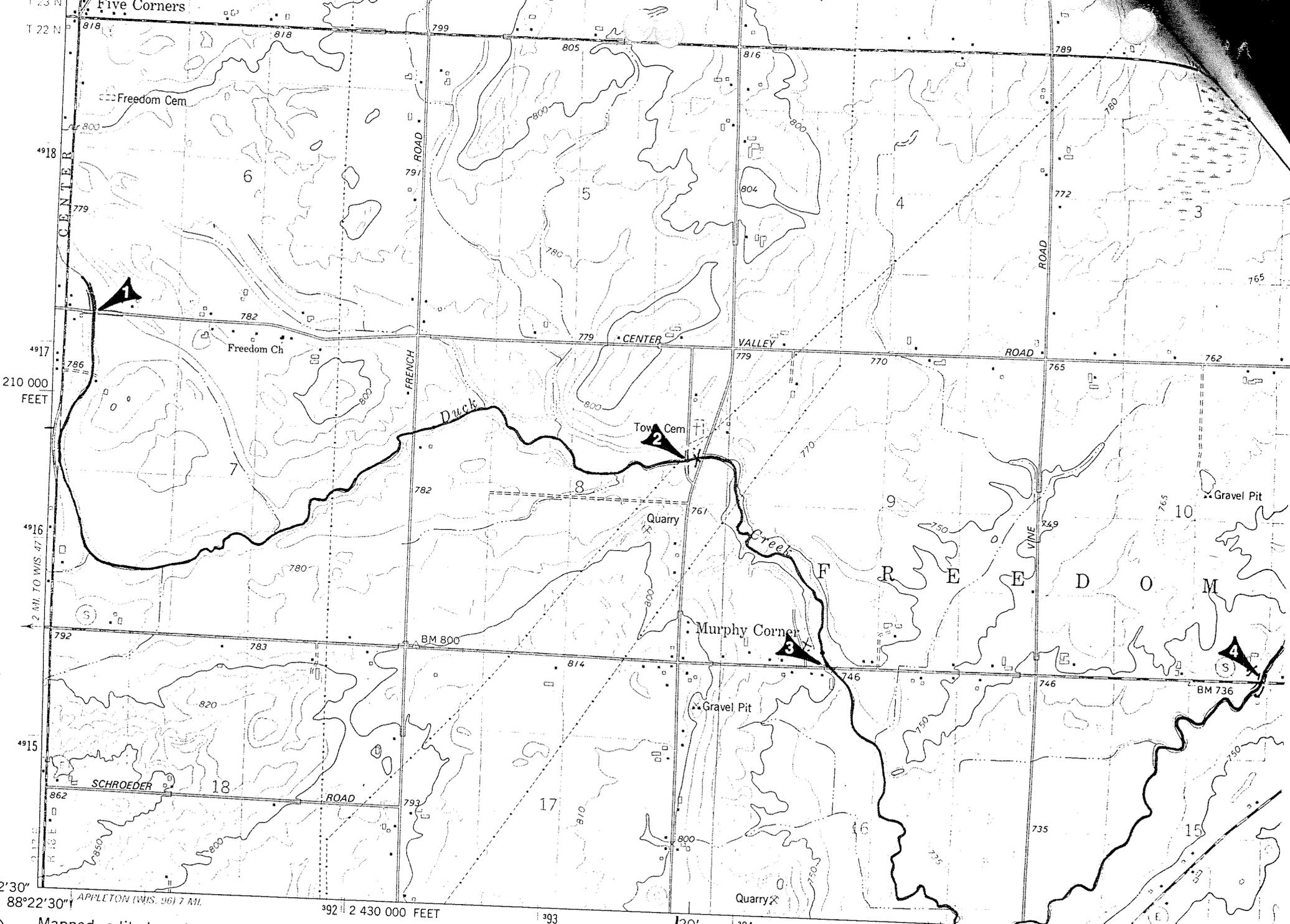
the survey sites. There is very little visible development, large shade trees, and in general this area imparts a relaxed pleasant feeling to the visitor. Physically the stream varies little in character from the preceding site with the exception of some natural widening and a slight increase in flow.

Conclusions

Based on my observation of a variety of aquatic life and habitat along with the findings of the Oshkosh Area Fish Manager and the residential development trend in the area, I am compelled to disagree with the classifications given to Duck Creek in 1976. I am recommending that the entire stream be classified as continuous fish and aquatic.

TD:ct

Attach.



Mapped, edited, and published by the Geological Survey
 Control by USGS and NOS/NOAA

(KAUKAUNA)
 3372 IV SE
 SCALE 1:24 000

CENTER VALLEY RD.

FACING UPSTREAM



CENTER VALLEY RD.

FACING DOWNSTREAM



CTH S.

$\frac{1}{4}$ MILE W.

FACING UP



CTH S.

1 MILE W.

FACING DOWN



FRITCH RD.

FACING DOWN



11/29/79

Stream Classification for a Tributary

to Duck Creek Near Isaar

By Dennis C. Weisensel

Introduction:

Isaar is a small unincorporated settlement in the northeast corner of the Town of Seymour in Outagamie County. A discharge is proposed to an unnamed tributary located approximately one-half mile south of Isaar. The tributary is somewhat linear in the area suggesting being dredged and for much of the upper reaches of the stream, is the road side ditch.

The drainage course was examined at 4 locations. Station number 1 was located at C.T.H. "VV" one mile south of Isaar. Station number 2 was located at Linsmeyer Road. Station number 3 at C.T.H. "G" and station number 4 was located at Pearl Street. The survey was conducted on September 10, 1979.

Results:

The headwaters of the Tributary to Duck Creek begins approximately one-half mile south of Isaar as a roadside ditch. The roadside ditch is adjacent to C.T.H. "VV" and was dry during the survey. At station number 1 the drainage way passed under C.T.H. "VV". Standing water was noted at this location at the time of the survey. The waterway is grassed and contains some cattails. Agricultural practices occur up to or near the banks. There are no pool-riffle areas in the immediate area.

At station number 2 (Linsmeyer Road) the waterway has a slight flow. An eight inch northern pike was observed in the pool area at the bridge. The waterway was grass-lined and contained aquatic plants (Sagittaria) and cattails.

Station number 3 was located at C.T.H. "G". The waterway follows Isaar Road and acts as a roadside ditch until one-half mile south of C.T.H. "G" where it flows in a southeasterly direction. The roadside ditch contains heavy cattail and other aquatic plant growths. Macro invertebrate present were Asellus and Gammarus. The flow at C.T.H. "G" was 1.4 cfs.

Station number 4 was located at Pearl Street. The morphology of the waterway has changed substantially at this station. The stream is no longer linear but meandering with distinct pool and riffle areas. The flow at Pearl Street is 1.92 cfs. Macro invertebrate present are Baetid, Simulid and Asellus. Land use remains agricultural but a larger buffer area is maintained with trees and grasses.

Conclusion:

The stream exhibits perpetually wet conditions upstream to Linsmeyer Road. The stream shall be classified from its origin downstream to Linsmeyer Road as noncontinuous and can be granted a marginal variance. From Linsmeyer Road to the first tributary in Section 26 (northeast of junction Pearl Street and Isaar Road), the stream is continuous and can be granted a intermediate aquatic life variance. The remaining of the stream to its mouth is continuous fish and aquatic classification. The attached map and pictures will help clarify.

1/2 MILE BELOW ISAAR
ISAAR ROAD SIDE DITCH
NORTH



SOUTH



STATION #1
Upstream



DOWNSTREAM

