

ECCSCM

Environmentally Concerned Citizens of South Central Michigan

2003

SPRING

MASSIVE RUNOFF OF LIQUID MANURE FROM FROZEN GROUND – DAIRY CAFOS POLLUTE BEAN CR, RIVER RAISIN STREAMS



Black manure stream flowing over ice of Toad Creek, approaching culvert at Coman Rd – Jelsma/Mericam discharge (March 2, 2003)

Throughout February, Confined Animal Feed Operations (CAFOs) sprayed liquid manure on frozen ground. With the first warm days in March, liquid manure flowed off fields, into drains, catch basins, and streams.

Jelsma/Mericam, Vreba-Hoff 1 and 2, and Vanderhoff Haley Dairy were all cited for manure discharges by DEQ.

Vreba-Hoff 1 and 2 had multiple violations, including manure runoff at Bothwell and Packard Rds in Medina Twp, and a several-day discharge into South Medina Drain, which flows to Bean Creek.

The most visible discharge was into Toad Creek, a Jelsma/Mericam violation, with liquid manure ponding into a manure lake on a field along Coman Rd in Wright Twp in Hillsdale County. The manure flowed onto a neighbor's property, into a tile inlet to Hillsdale

County Drain 261, and from there into Toad Creek, a mile downstream. DEQ E. coli samples at Coman Rd reached the highest levels yet: **1,340,000/100 ml**. The manure flow was visible on the surface of the ice for several days. As Toad Creek thawed, the manure spread downstream in the Bean/Tiffin Watershed, visible at Mulberry Road in Lenawee County on March 8. For more photos, see www.nocafos.org.

Vanderhoff Haley Dairy applied liquid manure on a sloping field with tile inlets, with runoff polluting Rice Lake Drain, a tributary of Bear Creek in River Raisin Watershed.

ECCSCM also documented runoff at other sites, including Miller Drain and Hazen Creek.

DEQ has promised enforcement action in all discharge cases. All pollution incidents were reported to DEQ by ECCSCM monitors.

Vreba-Hoff CAFOs finally fined for multiple violations (see p.2)

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Michigan fines Vreba-Hoff 1 and Vreba-Hoff 2 after multiple violations

Vreba-Hoff 1 (Dillon Hwy, Medina Twp) and Vreba-Hoff 2 (US-127, Wright Twp) were fined **\$15,000 each** in a consent judgment filed in January with the Michigan Department of Environmental Quality for multiple violations in 2002. The two operations will also be required to reimburse state costs of investigation, construct silage runoff control systems, and Vreba-Hoff 1 will be required to remediate a swale and wetland contaminated by silage leachate. The judgment includes stipulated penalties of **\$2,500 each for any additional violations**. (Vreba-Hoff 1 and 2 have had at least 3 discharge violations since the judgment.)

In April 2002, water monitoring by ECCSCM volunteers found dissolved oxygen at fish-kill levels in the large wetland on Dillon Hwy downstream from the Vreba-Hoff 1 facility. Subsequent investigation by the Department of Environmental Quality found silage leachate discharging to a pond and to the wetland. Both Vreba-Hoff facilities were cited for multiple discharges to streams in 2002, including silage leachate to Lime Lake Inlet and manure discharges to Medina Drain and Bean Creek.

If you see polluted water or smell manure in water, call immediately:

Scott Miller, DEQ: 517-780-7003
or PEAS Hotline (24 hrs.): 1-800-292-4706

In March, it was a mess! – here's the rundown of observed pollution

March 2 – Jelsma/Mericam applies liquid manure to frozen field on Coman Rd (Hillsdale Co.); manure ponds overnight in the field, then drains across a neighbor's property to County Drain 261, and directly onto ice of Toad Creek, the major tributary of Lime Creek in the Bean/Tiffin watershed. DEQ E. coli samples at Coman Rd reach the highest levels yet: **1,340,000/100 ml**. A makeshift dam of straw bales and plastic is placed over the tile inlet to the County Drain. Mr. Jelsma removes the dam March 5, and more manure enters Toad Creek. Hillsdale County Drain Commissioner orders Mr. Jelsma to replace the dam. As Toad Creek thaws during the next two weeks, the manure flow continues downstream, visible March 8 at Mulberry Rd, 3 miles east. **Bean/Tiffin Watershed – DEQ confirmed discharge**

March 7 - 13 – Liquid manure runoff after Bakerlads Dairy applies on frozen field, into Miller Drain along Beecher Rd (Lenawee Co); runoff from facility lot March 9 as plastic silt barrier collapses along South Branch of River Raisin. DEQ letter to Bakerlads cites inappropriate winter application, and requires reducing application rate from 19,000 to 9,500 gal/acre

March 9 – 24 – Vreba-Hoff 1 discharges manure into South Medina Drain, Ingall Hwy (Lenawee Co). See next page for more details. **Bean/Tiffin Watershed – DEQ confirmed discharge**

March 10 – 18 – Vanderhoff Haley Dairy discharges manure into Rice Lake Drain on Haley Rd (Lenawee Co) after application of liquid manure to frozen fields with washcob structures, tile inlets. Scott Miller DEQ arrives as a tile-plug blows on March 12. ECCSCM water samples (before tile blows) March 12: E. coli 4,257/100ml; DO 3.6 mg/L. DEQ test results not available yet. **River Raisin Watershed – DEQ confirmed discharge**

March 12 – Bacterial contamination of Henning Drain in River Raisin Watershed (Lenawee Co.); liquid manure applied to frozen ground by Hartland Farms. ECCSCM water sample: E. coli – 32,670

March 12 – Liquid manure applied to frozen ground by Vreba-Hoff 2 runs off into Durfee Lake (Lenawee Co). DEQ finds elevated bacteria at two sites draining from the field, the runoff site and also at the main inlet to Durfee Lake.

March 12 – Liquid manure applied by Vreba-Hoff 2 at Bothwell & Packard mid-February begins to flow from field to a drain leading to Bean Creek. DEQ water samples not yet available. **Bean/Tiffin Watershed – DEQ confirmed discharge**

March 14 – DEQ samples manure runoff near Tuttle Rd (Vreba-Hoff 2 manure application mid-Feb), Goose Creek, Siegel Drain to East Branch of the St. Joseph River.

March 15 - 21 – DEQ inspects blown tile (March 17, March 21) on Donnelly Rd field (Lenawee Co) where Vreba-Hoff 2 applied liquid manure in winter on frozen ground. Tile had been plugged in the drain to Fisher Lake, but field tile blew and runoff entered the drain to Fisher Lake.

March 16 – DEQ samples Lime Lake Inlet East and Tamarack Rd, runoff from Vreba-Hoff 2 facility (Hillsdale Co.), after Lime Lake residents complain of manure odor in water. DEQ states that millions of gallons of contaminated stormwater have collected at the facility – see next page for more details.

March 17 – Liquid manure applied to frozen ground enters drain to Hazen Creek, New Flevo Dairy, Forristier Rd (Lenawee Co).

March 20 – ECCSCM videotapes Vreba-Hoff 1 discharging thousands of gallons of silage leachate, first pumping it into a Terragator at leachate pit, then dumping it onto a sloping field that drains to South Medina Drain and to Ingall Rd drain near Packard (Lenawee Co). One gallon of silage leachate impairs 10,000 gal of water, often lowering the dissolved oxygen precipitously. ECCSCM sampling found DO levels at fish-kill levels at two Vreba-Hoff 1 sites on March 18: South Medina Drain, 1.8 mg/L and Durfee Creek Extension, 0.7 mg/L

New Hydrogen Sulfide Detector!

ECCSCM has purchased a Draeger Micro-Pak hydrogen sulfide meter, able to detect 0 -100 ppm.

DEQ lists these exposure levels/symptoms: 10 ppm – beginning eye irritation; 50-100 ppm – respiratory tract irritation; 100 ppm – loss of sense of smell after 2-15 minutes; altered respiration; several hours exposure results in gradual increase in severity of these symptoms and death may occur within the next 48 hours.

Long-term, ongoing pollution problems at Vreba-Hoff 1 and 2

Vreba-Hoff 1 – South Medina Drain, Ingall Hwy

In March, DEQ cited Vreba-Hoff 1 for discharging manure into South Medina Drain – a multiple-day violation. The discharges at this Drain are an ongoing problem since last year's discharge (May 2002!) when a manure dragline broke, and a makeshift earthen dam was constructed in the Drain. Liquid manure was applied to frozen fields at this site in January. Contaminated water collected behind the dam. With thaw, seepage occurred through sandy soils in the dam. Also during March, ECCSCM videotaped Vreba-Hoff 1 illegally dumping silage leachate onto a sloping field that drains to South Medina Drain. Vreba-Hoff spray-irrigated liquid through a pivot irrigator, presumably pumping from behind the dam or from the pooled leachate. ECCSCM water sampling at South Medina Drain on Ingall Hwy found persistently high *E. coli* readings for many months (May 15, 2002 – Too Numerous To Count; July 23, 2002 Too Numerous To Count; Nov. 11, 2002 – 13,860/100ml; Jan 1, 2003 – 6,336; March 18, 2003 – 37,620). On March 24, 2003, DEQ and Lenawee County Drain Commission ordered pumping of all contaminated water. Drain Commission removed the dam, and dredged the Drain. But ECCSCM monitoring on March 27 still found fish-kill levels of dissolved oxygen (1.1 mg/L) and an unacceptable *E. coli* count of 15,800/100ml.

Vreba-Hoff 2 – Facility, US-127

In March, DEQ reported that Vreba-Hoff 2 had temporarily impounded more than 10 million gallons of contaminated stormwater at the facility. Aerial photos taken by John Klein, ECCSCM President, on March 27, show the CAFO almost surrounded with the water, all of it upslope from Lime Lake. DEQ and EPA ordered treatment of the contaminated water at Addison wastewater treatment plant (that'll take some trucking!) or treatment through an on-site, temporary wastewater treatment equipment (contaminated water is still impounded at the facility as of this writing, April 7, 2003). Recent ECCSCM monitoring found high *E. coli* at several sites draining the Vreba-Hoff 2 facility: Lime Lake Inlet East – 25,740 on March 18; Tamarack drain on Lime Lake Inlet – 35,640 on March 18, 43,560 on March 27.



Vreba-Hoff 2 facility on US-127, nearly surrounded with contaminated stormwater (March 27, 2003)

for current updates, more photos, go to: WWW.NOCAFOS.ORG

ECCSCM Officers: John Klein, President; Lynn Henning, V-P; Richard Chudey, Sec-Treas
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www.eccscm.org

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