

**IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE CONSENT ORDER**

IN THE MATTER OF: JIM CHRISTENSEN Clay County	ADMINISTRATIVE CONSENT ORDER NO. 2007-AFO- 36
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TO: Jim Christensen
4375 160th Avenue
Royal, Iowa 51357

I. SUMMARY

This administrative consent order is entered into between the Iowa Department of Natural Resources (DNR) and Jim Christensen for the purpose of resolving the issues surrounding a manure discharge at Mr. Christensen's facility that contributed to a fish kill in Willow Creek. In the interest of avoiding litigation, the parties have agreed to the provisions below.

Questions regarding this administrative consent order should be directed to:

Relating to technical requirements:

Sheila Tuel, Field Office #3
Iowa Department of Natural Resources
1900 North Grand
Spencer, Iowa 53101
Phone: 712/262-4177

Relating to legal requirements:

Kelli Book, Attorney for the DNR
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Urbandale, Iowa 50322
Phone: 515/281-8563

Payment of penalty to:

Iowa Department of Natural Resources
Henry A. Wallace Building
Des Moines, Iowa 50319-0034

II. JURISDICTION

This administrative consent order is issued pursuant to Iowa Code section 455B.175(1) which authorizes the Director to issue any order necessary to secure compliance with or prevent a violation of Iowa Code Chapter 455B, Division III, Part 1 or 2005 Iowa Code Supplement Chapter 459A and the rules adopted or permits issued pursuant thereto, and Iowa Code section 455B.109 and 567 Iowa Administrative Code (IAC) chapter 10, which authorize the Director to assess administrative penalties; and Iowa Code section 481A.151 and 571 IAC chapter 113, which authorize the Director to collect restitution for injury caused to a wild animal by water pollution.

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III. STATEMENT OF FACTS

1. Jim Christensen owns and operates two open cattle feedlots, one located in Section 31 of Lincoln Township (T-95N, R-37W) in Clay County, Iowa and the other in Section 25 of Clay Township (T-95N, R-38W) in Clay County, Iowa. Approximately 1,800 feet separate the facilities at their closest points. Therefore, the lots are considered separate facilities. The open lot facilities each have a capacity of approximately 900 head. Both facilities are located in close proximity to Willow Creek.

2. On May 7, 2004, the DNR and Mr. Christensen entered into Administrative Consent Order No. 2004-AFO-37 to address manure control and water quality violations at Mr. Christensen's facility that resulted in a fish kill in Willow Creek in September 2001. Along with a monetary penalty, the administrative consent order required that Mr. Christensen comply with the minimum manure control requirements specified in 567 IAC 65.2(1) by retaining all manure solids for the feedlot areas. Additionally, Mr. Christensen was required to remove manure solids from the facility as frequently as the feedlot and weather conditions would allow in order to not cause surface or ground water pollution.

3. On August 3, 2006, DNR Field Office 3 was notified of dead and dying fish in Willow Creek four miles west of Rossie, Iowa at the intersection of 160th Avenue and County Road B-53. DNR Field Office 3 staff began the investigation during the afternoon on August 3, 2006. The field office staff began at the 190th Avenue Bridge, approximately 1 ½ miles south of County Road B-53. Several dead and dying fish were observed. The field office staff noted a manure odor in Willow Creek at this location. The field office staff broke into two groups to investigate the fish kill.

4. Lois Benson and Sheila Tuel, DNR Field Office 3 environmental specialists, investigated locations on Willow Creek and tributaries downstream of the Christensen facility.

a. Ms. Benson and Ms. Tuel visited the Christensen residence and spoke to Jim Christensen's wife, Julie. Mrs. Christensen stated they had worked with the Iowa State University Extension office in designing a manure runoff system for the facility. The system for the lots had been completed three weeks prior. Mrs. Christensen stated the system included concrete solid settling structures, pumps, and solid piping with gated ends to distribute runoff to nearby fields. Mrs. Christensen stated the area had received about ½ inch of rain on July 31 and another 3-3 ½ inches on August 1, but that the system appeared to work well.

b. Ms. Benson and Ms. Tuel continued their investigation downstream to the bridge on Highway 71. At the Highway 71 bridge the creek was clear with no odor. There were no fish observed at this location. The field office staff conducted field tests at this site.

c. Ms. Benson and Ms. Tuel continued upstream approximately 1 ½ miles to the 200th Avenue bridge. At the 200th Avenue bridge there was no odor and no fish were observed. The field office staff conducted field tests at this site.

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d. Ms. Benson and Ms. Tuel investigated a small tributary at the County Road B-53 bridge west of 180th Avenue. Live fish were observed at this location. The field office staff conducted field tests and collected laboratory samples at this site.

e. Ms. Benson and Ms. Tuel returned to the 190th Avenue Bridge where the investigation had begun. More dead and stressed fish were observed and the manure odor was still present. The field office staff conducted field tests and collected laboratory samples at this site.

f. Ms. Benson and Ms. Tuel continued upstream to a bridge on the west side of 180th Avenue, approximately ¼ miles south of County Road B-53. Dead and stressed fish were observed and a slight manure odor was detected. The field office staff conducted field tests and collected laboratory samples at this site.

g. Ms. Benson and Ms. Tuel proceeded to a small tributary at the 460th Street Bridge. Live fish were observed and there was no manure odor. The field office staff conducted field tests and collected laboratory samples at this site.

h. Ms. Benson and Ms. Tuel continued to the 190th Avenue Bridge at the corner of 450th Street. There was a small amount of foam with dead fish as well as fish gasping at the surface. The field office staff noted a strong manure odor at this location. The field office staff conducted field tests and collected laboratory samples at this site.

5. Jennifer Christian and Cindy Martens, DNR Field Office 3 environmental specialists, investigated locations on Willow Creek upstream from the Christensen facilities as well as the Christensen facilities and the adjacent portions of Willow Creek.

a. Following the initial stop at the 190th Avenue Bridge, Ms. Christian proceeded upstream to the 160th Avenue Bridge north of County Road B-53; the bridge was located between the two Christensen feedlots. Ms. Christian observed live minnows at the bridge, but did note a slight manure odor and brownish discoloration to the creek. Ms. Christian conducted field tests and collected laboratory samples at this site.

b. Ms. Christian continued downstream to the 170th Avenue Bridge south of County Road B-53. Ms. Christian observed both live and dead minnows and noted a manure odor. Ms. Christian conducted field tests at this site.

c. Ms. Christian stopped at the County Road B-53 Bridge between the Christensen feedlots. She observed dead chubs and minnows, as well as some live minnows at this location. She noted a brownish discoloration to the creek. Ms. Christian conducted field tests at this site.

d. Ms. Martens began her investigation upstream at the 150th Avenue Bridge. Ms. Martens observed live fish and did not detect an odor at this location. Ms. Martens conducted field tests and collected laboratory samples at this site.

e. Ms. Martens and Ms. Christian then visited the Christensen feedlots and toured the facilities and adjoining creeks. Mrs. Christensen and feedlot manager, Darren Day, accompanied Ms. Martens and Ms. Christian on the tour.

f. The group first visited the main yard, which is considered the north lot along with the lot referenced in paragraph 5.i, and viewed the newly installed pumping station. It did not appear as if manure had overflowed the dikes at this location, nor did the manure from the cornfield enter the creek. There was evidence of old solids that had not been

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cleaned up south of the new containment structure. The manure when mixed with the recent rains had flowed along the south side of the newly constructed berm and through the pasture settling area which had channeled to the creek. Ms. Martens and Mr. Day walked along the creek from the channeled area in the pasture to the west about ¼ mile. They did not observe any dead fish, discoloration, or manure odor upstream of the channeled area. Ms. Christian and Mrs. Christensen walked along the creek from the channeled area to the east until they reached County Road B-53 Bridge. They observed dead fish along this segment of the creek.

g. Ms. Martens and Mr. Day also looked at the silage pile located east of the main feedlot. The pile had runoff that was going into the stream. Ms. Martens tested the runoff with an ammonia field kit and found the results registered over the limit of the low range test.

h. The group then toured the south lot and looked at the newly installed control structures and pumping station. At this location there was evidence of manure flowing down a cement channel to the creek. The gated piping had allowed manure solids to pool near the creek and it appeared that manure flowed to the creek just east of this area. Ms. Martens and Mr. Day walked the creek from this location to the west along an alfalfa field. They observed hundreds of dead fish and the water was murky and discolored. Ms. Christian and Mrs. Christensen walked the creek from this location to the east and observed hundreds of dead fish and discolored water.

i. The group concluded its tour at the most northern lot, which is considered part of the north lot along with the main yard referenced in paragraph 5.f, that contained 230 head of cattle. The concrete solids separation basin showed evidence of overflow with solids and manure water lines on the top of the northern basin. It was also noted that the earthen dike created as an extension of the cement to the south had been breached as manure and water backed up before pumping. The manure then ran to the west through a grassed area into a small creek that flowed south towards the main lot. The grassed area was very soggy and had a strong manure odor. There was also a small channeled area where the manure and water run under the fence and directly to the stream.

The field test results from the sites were as follows:

Location	Ammonia (mg/L)	Dissolved Oxygen (mg/L)	pH	Temperature (°C)
150th Avenue Bridge	0.4	-	9.3	30
160 th Avenue Bridge	1.2	4	7.6	31
B-53 Bridge	1.0	7	-	-
Christensen South Feedlot	1.0	-	-	-
160 th Avenue Tributary	0.4	4	-	-
170 th Avenue Bridge	2	4	8.5	30
B-53 Tributary	0.6	7.5	7.9	22
180 th Avenue Old Bridge	15	1.5	7.8	29

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460 th Street Tributary	0.7	10	8.2	27
180 th Bridge at 450 th Street	15	0.5	7.8	30
190 th Avenue Bridge	15	<0.5	7.6	27.5
200 th Avenue Bridge	1.0	6.5	8.3	28
Hwy 71 Bridge	0.9	6.5	8.3	28

The laboratory tests were as follows:

Location	Ammonia Nitrogen (mg/L)	Fecal Coliform (Col/100mL)	Biochemical Oxygen Demand (mg/L)	Total Suspended Solids (mg/L)
150 th Avenue Bridge	0.18	2,200	18	250
160 th Avenue Bridge	0.58	880,000	27	19
170 th Avenue Bridge	1.3	280,000	35	21
B-53 Tributary	0.12	47,000	25	12
180 th Avenue Old Bridge	3.8	1,800,000	110	73
460 th Street Tributary	0.12	160,000	-	-
180 th Bridge at 450 th Street	8.0	260,000	-	-
190 th Avenue Bridge	10	6,800,000	290	53

6. On August 4, 2006, Ms. Martens and Ken Hessenius, DNR Field Office 3 supervisor, returned to the Christensen facility and met with Jim Christensen. Kris Kohl from the Iowa State University Extension office was also present. Mr. Kohl provided technical assistance to Mr. Christensen for the recent installation of the manure control structures. Mr. Christensen mentioned the recent rainfalls amounting to about 4 inches of rain. Mr. Kohl said he designed an alternative manure control system to handle the liquid manure after solid settling and the original system was designed to handle a 1 ½ inch rainfall over 24 hours. Mr. Christensen stated he had installed larger pumps and larger pipes to accommodate a larger rainfall amount. Mr. Christensen stated the manure control system had been in place about three weeks.

a. The group toured the manure control system and along the south side of the concrete barrier an earthen dike had been constructed to further contain manure. During the recent heavy rainfall, the dike washed out and the manure ran into a tributary of Willow Creek.

b. The west and south portion of the north lot drain to a common area on the south side. The liquid after the solids settling structure is pumped to a cornfield. An earthen

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basin and dike were constructed to contain the liquid. It appeared liquid did back up in the channel during the recent rain, but little or no manure ran over the dike.

c. The runoff from the south lot is directed to a solids settling structure located near the southeast corner of the feedlot. Several concrete retaining walls were used to create a manure holding area and a small earthen dike was constructed on the west side of the concrete wall. The liquid effluent is pumped to the west to a gated pipe and distributed to an alfalfa field. Some of the effluent flowed back to the east and into the creek and some of the effluent overflowed the earthen dike on the west side.

7. On September 5, 2006, a Notice of Violation letter was issued to Mr. Christensen for the water quality violations caused by the manure discharge from his facility. The letter included a copy of the inspection report. Mr. Christensen was informed the matter was being referred for formal enforcement.

8. The fish kill evaluation by Fisheries staff concluded that 21,834 fish valued at \$4,777.06 were killed. The costs of performing this evaluation were \$552.81. The total fish kill assessment totals \$5,329.87.

9. Mr. Christensen neither accepts nor denies the facts stated in Paragraphs 1 -8 of this section and enters into this administrative consent order for settlement purposes only.

10. Since the August 2006 incident, Mr. Christensen has taken the following actions: (1) larger pumps in the solids settling basins have been installed; (2) additional pipe has been purchased to be installed to move the discharge points further away from waters of the state; (3) runoff control basins have been enlarged; and (4) concrete walls have replaced two earthen berms of runoff control basins and all other berms have been filled and packed.

IV. CONCLUSIONS OF LAW

1. Iowa Code section 459A.401(1) and 567 IAC 65.101(1) require the minimum level of manure control for any open feedlot shall be the removal of settleable solids from the manure prior to discharge into a water of the state. DNR Field Office 3 staff observed manure solids from Mr. Christensen's feedlots in Willow Creek. The above-noted facts indicate a violation of these provisions.

2. 567 IAC 61.3(2)"b, c, d" provides general water quality criteria and prohibits discharges that will produce objectionable color, odor or other aesthetically objectionable conditions; settle to form sludge deposits; interfere with livestock watering; or are toxic to animal or plant life. The discharge of manure from Mr. Christensen's feedlots to Willow Creek is a violation of this provision in that it was acutely toxic to fish, created objectionable color and odor, and created floating debris and scum.

3. Iowa Code section 455B.186 prohibits the discharge of pollutants into water of the state, except for adequately treated pollutants discharged pursuant to a permit from the

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DNR. A permit has not been issued for these feedlots and DNR Field Office 3 found evidence of the discharge of untreated pollutants into waters of the state. The above-facts indicate a violation of this provision.

4. Iowa Code section 481A.151 provides that a person who is liable for polluting a water of this state in violation of state law shall also be liable to pay restitution to the DNR for injury caused to a wild animal by the pollution. The DNR has adopted 571 IAC chapter 113. 571 IAC 113 provides that a person who is liable for polluting a water of this state in violation of state law shall also be liable to pay restitution to the DNR for injury caused to a wild animal by the pollution. A fish kill resulted from the manure discharge at Mr. Christensen's facilities.

5. Mr. Christensen neither accepts nor denies the violations stated in Paragraphs 1-4 of this section and enters into this administrative consent order for settlement purposes only.

V. ORDER

THEREFORE, it is hereby ordered and Mr. Christensen agrees to do the following:

1. Mr. Christensen shall pay restitution in the amount of \$3,997.40 within 30 days of the date the Director signs this administrative consent order; and
2. Mr. Christensen shall pay a penalty of \$6,000.00 within 30 days of the date the Director signs this administrative consent order.

VI. PENALTY

1. Iowa Code section 459A.502 and Iowa Code section 455B.191 authorize the assessment of civil penalties of up to \$5,000.00 per day of violation for each of the water quality violations involved in this matter.

2. Iowa Code section 455B.109 authorizes the Environmental Protection Commission (Commission) to establish by rule a schedule of civil penalties up to \$10,000.00, which may be assessed administratively. The Commission has adopted this schedule with procedures and criteria for assessment of penalties in 567 IAC chapter 10. Pursuant to these rules, the DNR has determined that the most effective and efficient means of addressing the above-cited violations is the issuance of an administrative consent order with an administrative penalty. The administrative penalty assessed by this administrative consent order is \$6,000.00. The administrative penalty is determined in accordance with the following:

Economic Benefit – Failure to properly contain all manure has allowed Mr. Christensen to save time and money. By failing to properly land apply the manure that was

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discharged into Willow Creek, Mr. Christensen gained an economic benefit. However, Mr. Christensen has installed controls at his facility and any economic benefit he received was minimal. Therefore, no economic benefit is being assessed.

Gravity of the Violation – One of the factors to be considered in determining the gravity of a violation is the amount of penalty authorized by the Iowa Code for that type of violation. As indicated above, substantial civil penalties are authorized by statute. Despite the high penalties authorized, the DNR has decided to handle the violations administratively at this time, as the most equitable and efficient means of resolving the matter. Actual harm to the environment was documented by visual and olfactory observation of impact to Willow Creek, including dead fish. It was estimated that 21,834 fish were killed. The water quality violations threaten the integrity of the water quality program. Additionally, the discharge violated the 2004 administrative consent order. Based on the above considerations, \$1,000.00 is assessed for the violations cited in Section IV, Paragraph 1; \$2,000.00 is assessed for the violations cited in Section IV, Paragraph 2; and \$1,000.00 is assessed for the violations cited in Section IV, Paragraph 3 for a total of \$4,000.00 assessed for this factor.

Culpability – Mr. Christensen has a duty to remain knowledgeable of DNR's requirements and to be alert to the probability that his conduct is subject to DNR's rules. Mr. Christensen did install structures for manure runoff; however the structures were not adequate to protect the water quality near his facility. Additionally, the discharge violated the 2004 administrative consent order. Based on the above considerations, \$2,000.00 is assessed for this factor.


VII. WAIVER OF APPEAL RIGHTS

This administrative consent order is entered into knowingly and with the consent of Jim Christensen. For that reason, Jim Christensen waives his right to appeal this order or any part thereof.

VIII. NONCOMPLIANCE


Failure to comply with this order, including failure to timely pay any penalty, may result in the imposition of further administrative penalties or referral to the attorney general to obtain injunctive relief and civil penalties pursuant to Iowa Code section 455B.191. Compliance with Section "V. Order" of this administrative consent order constitutes full satisfaction of all requirements pertaining to the specific violations described in Section "IV. Conclusions of Law" of this administrative consent order. DNR reserves the right to bring enforcement action, including penalties, or to request that the attorney general initiate legal action to address other violations not described in Section "IV. Conclusions of Law" of this administrative consent order but which may arise from the facts summarized in Section "III. Statement of Facts" of this administrative consent order. DNR specifically reserves the right to pursue enforcement action, including penalties, for any current violations not specifically cited in this order.

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RICHARD A. LEOPOLD, DIRECTOR
Iowa Department of Natural Resources

Dated this 27 day of
Nov., 2007.



JIM CHRISTENSEN

Dated this _____ day of
_____, 2007.

#56492 and #56613; Kelli Book; Shelia Tuel; Kenneth Hassenius; Gene Tinker; EPA;
VIII.D.1.b, VIII.D.3.a