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ENVIRONMENTAL PROTECTION  
AGENCY-REGION VII  
REGIONAL HEARING CLERK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 7

In the matter of:	)	
	)	
	)	
Lowell Vos	)	DOCKET NO. CWA-07-2007-0078
d/b/a Lowell Vos Feedlot	)	
	)	
Ida County, Iowa,	)	
	)	COMPLAINANT'S PREHEARING
	)	EXCHANGE
Respondent.	)	
_____	)	

Pursuant to 40 C.F.R. § 22.19 of the "Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties," 40 C.F.R. Part 22 (CROP) and the Presiding Officer's Order of February 6, 2008, Complainant United States Environmental Protection Agency (EPA) submits this Prehearing Exchange.

**I. WITNESSES.**

1. Lorenzo Sena. Mr. Sena is an inspector with EPA Region 7's Environmental Services Division. Mr. Sena's duties include the inspection of facilities subject to regulation under the Clean Water Act (CWA), 33 U.S.C. § 1251, *et seq.*, including inspections of concentrated animal feeding operations, and the collection of evidence regarding possible violations of the CWA at those facilities. Mr. Sena is expected to testify regarding his observations during his inspection of Respondent's cattle feeding facility on May 31, 2006. The Region 7 Concentrated Animal Feeding Operation Inspection Checklist and attachments memorializing Mr. Sena's findings with regard to the Respondent's cattle feeding operation is attached hereto as Complainant's Exhibit 23. Finally, Mr. Sena will testify as to facts relating to the nature, circumstances, extent, and gravity of the violations alleged in the Complaint, taking into account his personal observations at the facility and his review of records relevant to the facility's operations.

2. Stephen Pollard. Mr. Pollard is an Environmental Scientist in the Water Enforcement Branch of Region 7's Water, Wetlands and Pesticides Division. Mr. Pollard observed the unnamed tributary of Elliot Creek and Elliot Creek near Respondent's facility on December 11,

2006. The photographs of the unnamed tributary of Elliot Creek and Elliot Creek taken by Mr. Pollard on December 11, 2006, are attached as Complainant's Exhibit 24. Mr. Pollard conducted an inspection of Respondent's facility on March 11, 2008. Photographs taken during the March 11, 2008, inspection and the Photo Index subsequently constructed by Mr. Pollard are attached as Complainant's Exhibit 28. Based on his observations and personal knowledge, Mr. Pollard will testify regarding the flow path of runoff and pollutants from the Respondent's facility to waters of the United States. Mr. Pollard will testify as to his review of the evidence in this matter and the factual basis for EPA's determination that Respondent violated the CWA. Mr. Pollard will testify as to facts relating to the nature, circumstances, extent, and gravity of the violations alleged in the Complaint, taking into account his personal observations at the facility and his review of records relevant to the facility's operations.

3. Jeff Prier. Mr. Prier is an Environmental Specialist who works for the Iowa Department of Natural Resources (IDNR) Field Office #3. Mr. Prier's duties include, among other things, inspection and site assessment of animal feeding operations in northwestern Iowa. Mr. Prier has inspected Respondent's facility and will testify regarding his observations and his review of records relevant to Respondent's operations. Mr. Prier also acted as an IDNR point of contact for the Respondent for NPDES permitting and compliance issues. Mr. Prier will testify regarding communications between Respondent and IDNR and Respondent's history of noncompliance with the CWA.

4. Ryan Olive. Mr. Olive is a Limnologist working for the University of Iowa Hygienic Laboratory under a contract for IDNR. Either Mr. Olive will testify regarding stream assessments of Elliot Creek and Garretson Ditch he performed in September 2007. Mr. Olive will provide testimony regarding stream habitat, recreation opportunities, and aquatic life observed in Elliot Creek and Garretson Ditch. The results of his assessments are attached as Complainant's Exhibits 26 and 27.

5. Lannie Miller. Mr. Miller is a Fisheries Biologist who works for IDNR. Mr. Miller has worked for IDNR for more than 30 years. His duties include, among other things, responding to fish kills in Iowa streams. Mr. Miller will testify that he responded to a fish kill in Elliot Creek in 1991. Mr. Miller will also testify regarding his experience in responding to fish kills resulting from feedlot discharges and opine on the impact of discharges from Respondent's feedlot on the water quality and aquatic life in Elliot Creek and the larger streams it flows into. EPA will provide Mr. Miller's resume in a supplemental exchange.

6. Gene Tinker. Gene Tinker is the Animal Feeding Operations Coordinator for the IDNR. Mr. Tinker may testify generally regarding IDNR efforts to bring facilities like the Respondent's feedlot into compliance with the requirements of the CWA and state law. Mr. Tinker will likely testify regarding the "Iowa Plan," a five year program established by the Iowa Cattlemen Association and IDNR that provided amnesty for feedlots that met agreed upon milestones toward compliance with CWA and state requirements. Mr. Tinker may testify regarding Iowa statutory and regulatory requirements applicable to concentrated animal feeding operations.

7. Sandra Doty. Ms. Doty is a hydrologist with Science Applications International Corporation (SAIC). Ms. Doty will testify as an expert regarding runoff from Respondent's feedlot. Among other things, Ms. Doty will testify regarding computer modeling that demonstrates that Respondent's feedlot discharged pollutants to waters of the United States. Her expert report discussing the modeling she conducted and summarizing her conclusions is attached as Complainant's Exhibit 29. Ms. Doty's curriculum vitae (CV) is attached as Complainant's Exhibit 39.

8. Dr. Stephanie Harris. Dr. Harris is a Veterinarian in the U.S. Public Health Service detailed to the EPA Region 10 Laboratory located in Port Orchard, Washington. Dr. Harris is a Diplomat of the American College of Veterinary Preventive Medicine. Dr. Harris will testify as an expert witness regarding the public health threats posed by cattle waste runoff. Dr. Harris' testimony will help establish the gravity of Respondent's violations, in particular as to the potential for human health effects from exposure to pollutants found in cattle waste. Dr. Harris' CV is attached as Complainant's Exhibit 41.

9. Jonathan S. Shefftz. Mr. Shefftz is a financial analyst with JShefftz Consulting in Amherst, Massachusetts, and is contracted with Industrial Economics, Incorporated. Mr. Shefftz will testify as an expert witness regarding the economic benefit enjoyed by Respondent as a result of non-compliance. His expert report is attached as Complainant's Exhibit 31. Mr. Shefftz's CV is attached as Complainant's Exhibit 41.

10. EPA reserves the right to call all fact witnesses named by Respondent.

## II. EXHIBITS.

For purposes of the list of documents below, "Complainant's Exhibit" is abbreviated as "C \_\_\_." The documents themselves are labeled "Complainant's Ex. No. XX"

- C1 2002 Aerial Photograph Lowell Vos Feedlot
- C2 2004 Aerial Photograph Lowell Vos Feedlot
- C3 2005 Aerial Photograph Lowell Vos Feedlot
- C4 2006 Aerial Photograph Lowell Vos Feedlot
- C5 2006 Aerial Photograph Elliot Creek Watershed
- C6 2007 Aerial Photograph Lowell Vos Feedlot
- C7 USGS 7.5 Minute Topographic Quadrangle Union Center SW
- C8 USGS 7.5 Minute Topographic Quadrangle Union Center SE

- C9 National Pollutant Discharge Elimination System Permit (August 19, 1991) and Cover letter
- C10 IDNR letter to Lowell Vos seeking application for NPDES permit renewal (June 8, 2000)
- C11 Follow up letter to Lowell Vos seeking application for NPDES permit renewal (September 13, 2000)
- C12 Open Feedlot Registration Form (April 4, 2001)
- C13 IDNR correspondence regarding Registration of Lowell Vos feedlot (May 15, 2001)
- C14 Open Feedlot Assessment for Lowell Vos Farm and Feedlot (October 16, 2001)
- C15 On-Site Open Cattle Feedlot Inspection Form (June 25, 2003)
- C16 Correspondence re: On-Site Open Cattle Feedlot Inspection – Lowell Vos (July 2, 2003)
- C17 Notice of Violation- Failure to submit required information (February 23, 2004)
- C18 NRCS letter to Lowell Vos (April 6, 2004)
- C19 Notification of failure to submit complete Plan of Action (April 27, 2004)
- C20 POA Open Feedlot Operation Permit Application Form (June 10, 2004)
- C21 Plan of Action Approval – Lowell Vos Feedlot (August 26, 2004)
- C22 Notice of Violation/Imminent termination of participation in Iowa Plan (April 28, 2005)
- C23 US EPA Region VII Concentrated Animal Feeding Operation Inspection Checklist and attachments (May 31, 2006)
- C24 Photos of Unnamed Tributary of Elliot Creek and Elliot Creek (December 11, 2006)
- C25 Finding of Violation Order for Compliance (January 19, 2007)
- C26 IDNR Aquatic Life/Recreation Assessment (1037-5) Elliot Creek (September 5, 2007)
- C27 IDNR Aquatic Life/Recreation Assessment (1037-4) Garretson Ditch (September 5, 2007)
- C28 Photos and Photo Index of Lowell Vos Feedlot (March 11, 2008)

- C29 SAIC Expert Discharge Report (April 4, 2008)
- C30 Record of Climatological Observations for Cherokee County, Iowa, Holstein County, Iowa, Le Mars County, Iowa and Sioux City Gateway Airport for January 1, 2002-December 31, 2007.
- C31 Economic Benefit Expert Report by Jonathan S. Shefftz
- C32 *Beef Feedlot Systems Manual*, Iowa Beef Center, Iowa State University (2006)
- C33 Risk Assessment Evaluation for Concentrated Animal Feeding Operations, U.S. Environmental Protection Agency, Office of Research and Development (May 2004)
- C34 Environmental Impacts of Animal Feeding Operations, US EPA, December 31, 1998,
- C35 Disease Information Escherichia coli O157:H7
- C36 Disease Information Salmonellosis
- C37 Parasitic Disease Information Cryptosporidiosis
- C38 Parasitic Disease Information Giardiasis
- C39 CV for Sandra Doty
- C40 CV for Dr. Stephanie Harris
- C41 CV for Jonathan S. Shefftz

### **III. Detailed Discussion of Proposed Penalty**

#### **A. Introduction**

The Clean Water Act ("CWA" or the "Act") regulates discharges of pollutants into waters of the United States. 33 U.S.C. § 1319(g)(2)(B), states that any person who is found to have violated section 1311, 1312, 1316, 1317, 1318, 1328 or 1345 of the Act may be assessed an administrative penalty of up to \$10,000 per day for each day during which the violation continues; except that the maximum amount of the penalty can not exceed \$125,000. The Debt Collection Improvement Act of 1996, 31 U.S.C. § 3701 provided for a penalty of up to \$10,000 per violation per day through January 30, 1997, and \$11,000 per violation per day on or after January 31, 1997. The Act was again amended in 2004 to further adjust for inflation. The statutory maximum for Class II Administrative Penalties for violations that occurred January 31,

1997 through March 15, 2004, is \$137,500 and \$157,500 for violations after March 15, 2004. The maximum daily administrative penalty remains \$11,000 per day per violation.

In determining the amount of penalty, the CWA requires that the Environmental Protection Agency ("EPA") consider the nature, circumstances, extent and gravity of the violations as well as the economic benefit or savings resulting from the violation. EPA must also consider the violator's ability to pay, prior history of such violations, the degree of culpability, and other matters as justice may require. (33 U.S.C. § 1319(g)(3)). The following is a discussion of EPA's consideration of these statutory in determining the amount of the proposed penalty.

## **B. Statutory Factors Considered in Penalty Calculation**

### **1. Nature, Circumstances, Gravity and Extent**

The nature and extent of the violations, or "gravity factor" of the violations was determined by taking into account the actual and potential harm to human health and the environment and the significance of the violations. Discharges of pollutants to waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit and failure to apply for a NPDES permit are the bases for the proposed penalty.

On May 31, 2006, the Environmental Protection Agency (EPA) performed a concentrated animal feeding operation ("CAFO") inspection at Lowell Vos Feedlot (Respondent) located near Kingsley, Iowa. The inspection was performed in order to determine the feedlot's compliance status with the CWA. Based on observations made during the inspection it was determined that Respondent's feedlot did not have adequate livestock waste control structures in place to control runoff from the site. As a result, all significant precipitation events resulted in the discharge of livestock waste to an unnamed tributary of Elliot Creek and Elliot Creek. Elliot Creek and its unnamed tributary are waters of the United States. The inspection also confirmed that Respondent was not operating under a NPDES permit.

At the time of the inspection, Respondent had approximately 2,200 head of feeder cattle in pens covering 40 acres. At times during the five years EPA is considering for penalties, Respondent confined as many as 3,000 head. Respondent admits in his Answer that, at all times considered, Respondent confined greater than 1,000 cattle at its feedlot. Runoff from the feedlot flows through erosional features into an unnamed tributary of Elliot Creek. Pollutants from the feedlot then flow approximately 1 mile through the unnamed tributary into Elliot Creek.

Elliot Creek was classified as a general use water by IDNR. General use waters are defined as being suitable for noncontact recreation, crop irrigation, livestock and wildlife watering and industrial, agricultural, domestic, and other incidental water withdrawal uses. In 2006, Iowa adopted more protective water quality standards that classified Elliot Creek's uses as Primary Contact Recreation and Wildlife and Aquatic for warm water species. Elliot Creek flows into the Garretson Ditch. Use evaluations and aquatic life sampling performed by IDNR

identified the presence of fish species in Elliot Creek and Garretson. IDNR observed evidence that people fish in Garretson Ditch. Garretson Ditch is part of the Monona-Harrison Ditch watershed, and is one of the primary tributaries to the Monona-Harrison Ditch. These ditches are naturally-occurring fish containing streams that have been manipulated and straightened. The Monona-Harrison Ditch flows into the Missouri River. The Missouri River flows to the Mississippi River. The Mississippi flows to the Gulf of Mexico.

The discharge of pollutants from Respondent's feedlot impacted surface waters. Eroded sediment clouds the water, making it difficult or impossible for plants to grow and suffocate fish by clogging their gills. High levels of ammonia can be toxic to fish and other aquatic life. Excess nutrients can cause algae blooms that, along with decay of plant matter in the water, consume oxygen that is vital to plants, fish and other aquatic life. Bacterial and viral pathogens found in runoff from CAFOs can cause serious illnesses in humans and animals that come into contact with contaminated water.

#### **Count 1 – Unpermitted Discharge of Pollutants to Waters of the U.S.**

Count 1 alleges that Respondent discharged pollutants to waters of the United States without an NPDES permit. At the time of its May 31, 2006, inspection, EPA observed a lack of adequate runoff controls and evidence that feedlot runoff had discharged from Respondent's facility. A subsequent inspection on March 11, 2008, identified significant erosional features connecting Respondent's feedlot to the unnamed tributary of Elliot Creek. EPA inspectors observed and documented eroded manure and other feedlot pollutants within these erosional features.

To determine the number of illegal discharge events, and the corresponding days of violation, EPA implemented two computer models. EPA used the Soil and Water Assessment Tool (SWAT) and the Agricultural Policy Environmental Extender (APEX) models to simulate flow and sediment and nutrient movement from Respondent's feedlot into Elliot Creek. Results from the SWAT and APEX models indicate that Respondent discharged pollutants from the feedlot into the unnamed tributary of Elliot Creek during 103 storm events. The APEX model demonstrates that approximately 40 million gallons of runoff entered the unnamed tributary of Elliot Creek between 2002 and 2007. This runoff contained approximately 3,500 tons of manure, 8.4 tons of phosphorous and 28 tons of nitrogen. Respondent is liable for up to \$11,000 per day for each day it discharged.

#### **Count 2 – Failure to Apply for a NPDES Permit**

Count 2 alleges that Respondent failed to apply for a NPDES permit prior to discharging pollutants into a water of the United States. Although Respondent discharged approximately 100 times into Elliot Creek between August 2002 and February 2007, Respondent did not apply to IDNR for a NPDES permit until December 2, 2005. The total number of days of violation for Count 2 was 1206. Respondent is liable for up to \$11,000 per day for each day it failed to apply for an NPDES permit.

## **2. Economic Benefit**

EPA performed an economic benefit analysis associated with the CWA violations at Respondent's facility. For the purposes of determining economic benefit, EPA combined counts 1 and 2. EPA calculated the economic benefit associated with Respondent's violations by looking at the avoided costs that would have been associated with the construction and operation of livestock waste controls at Respondent's facility.

The report uses cost estimates that were based on the 2006 document *Beef Feedlot Systems Manual* published by the Iowa Beef Center at Iowa State University. Specifically, EPA used the cost estimates associated with a 1,500 head earthen lot with windbreak. For the purpose of calculating economic benefit, EPA only considered engineering and construction costs associated with environmental structures. Based on the Iowa State University publication, EPA estimates that construction of adequate runoff controls would cost approximately \$140,000. EPA has notified Respondent of this estimate and offered to use site specific estimates provided by Respondent if they would benefit Respondent in calculating economic benefit. To date EPA has received no cost information from Respondent.

At hearing EPA will present testimony that Respondent's total economic benefit from noncompliance by avoiding the construction of runoff controls is \$161,000.

## **3. Ability to Pay**

Respondent did not raise ability to pay as a defense in the Answer to the Complaint and he has not provided Complainant with any information to support such a claim.

## **4. Prior History**

In 1991, Respondent was issued an NPDES permit but failed to construct the runoff controls required by the permit and continued to operate in violation of the CWA. Between 2001 and 2006, IDNR attempted to work with Respondent to bring the feedlot into compliance. However, Respondent's efforts were insufficient and IDNR issued several Notices of Violation to Respondent during this period for Respondent's failure to meet compliance milestones. After more than 16 years of illegally discharging feedlot pollutants to waters of the United States, Respondent finally achieved compliance by reducing the number of head below regulatory thresholds. This action was in response to an EPA administrative compliance order. To date Respondent has not build runoff controls.

## **5. Culpability**

CAFO regulations covering Respondent's facility have been in place since 1976. Respondent has had ample opportunity as well as the obligation to be aware of all regulations relating to its activities. In 1991 Respondent was issued a NPDES permit and was aware of the

requirement to install livestock waste controls and prevent discharges. Respondent never installed adequate controls and continued to operate as large CAFO for approximately 16 years. Even after being informed numerous times regarding the CAFO requirements, Respondent continually failed to comply with the CWA.

## **6. Other Matters as Justice may Require**

EPA is unaware of any matters that require a penalty reduction. Nevertheless, EPA considered and incorporated a number of potential mitigation factors in proposing the administrative maximum penalty of \$157,500. The factors included, among others, the distance between Respondent's feedlot and Elliot Creek and any state delays in processing Respondent's overdue NPDES permit application. Respondent received a very large economic benefit that by itself is greater than the statutory maximum. Respondent operated out of compliance for years with full knowledge and understanding of the regulatory requirements. Finally, Respondent discharged thousands of tons of cattle manure and its associated pollutants into a fish bearing stream. Arguably, the violations identified at Respondent's feedlot warrant a proposed penalty many times greater than \$157,000. However, as will be demonstrated at the hearing or in post-hearing briefs, EPA gave the Respondent the benefit of doubt when reasonable and was very conservative in applying the runoff models for penalty calculation.

### **C. Conclusion**

For all the forgoing reasons, the violations alleged in the Complaint constitute serious CWA violations warranting assessment of a penalty in the amount of \$157,500, the statutory maximum.

## **IV. LOCATION, ESTIMATE REGARDING LENGTH, AND AVAILABILITY FOR HEARING**

### Location

Complainant proposes Des Moines, Iowa for a hearing location. Des Moines is located within a few hours of Respondent's feedlot and is where Respondent's attorney resides. Holding the hearing in Des Moines would be a convenient central location for many of Respondent's and Complainant's witnesses. Des Moines also hosts a national airport and has many options for a hearing location.

As an alternative, Complainant proposes Sioux City, Iowa, for the hearing location. It is the nearest city of significant size to Respondent's feedlot with an airport and Respondent resides and his feedlot is located within a short driving distance from Sioux City.

### Estimated Time for Hearing

Complainant intends to present some of the testimony in the form of "written testimony" as authorized by Section 22.22 of the CROP Rules. If the parties are unable to stipulate to

significant facts and findings in this case and Complainant presents its entire case orally, Complainant estimates that it will require approximately three days to present its case in chief. The length of time required for rebuttal testimony and cross examination of Respondent's witnesses will depend on the numbers and substance of documents and witnesses disclosed in Respondent's Prehearing Exchange.

Availability for Hearing

Complainant is available anytime after June 15, 2008.

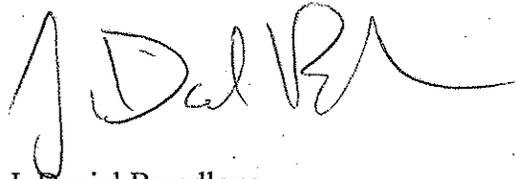
**IV. Paperwork Reduction Act**

The Paperwork Reduction Act, 44 U.S.C. § 3501 *et seq.*, has no applicability to this proceeding. Complainant has not alleged a failure to comply with any "collection of information" within the meaning of 44 U.S.C. § 3512, and no Office of Management and Budget control numbers are required for any of the documents at issue in this matter.

**V. Reservations**

Complainant reserves the right to call all witnesses named by Respondent. Complainant further reserves the right to submit the names of additional witnesses and to submit additional exhibits prior to the hearing of this matter, upon timely notice to the Presiding Officer and to Respondent.

RESPECTFULLY SUBMITTED this 7<sup>th</sup> day of April, 2008.



J. Daniel Breedlove  
Assistant Regional Counsel  
Region 7

CERTIFICATE OF SERVICE

I hereby certify that copies of the Prehearing Exchange in the Matter of Lowell Vos d/b/a Lowell Vos Feedlot., Docket No. CWA-07-2007-0078, were sent to the following persons in the manner indicated:

A true and correct copy hand delivered to:

Kathy Robinson (original plus one copy)  
Regional Hearings Clerk  
EPA Region 7  
901 North 5<sup>th</sup> Street  
Kansas City, Kansas 66101

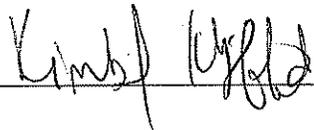
A true and correct copy by EPA pouch mail to:

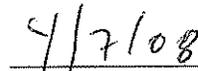
Honorable William B. Moran  
Administrative Law Judge  
U.S. EPA Office of Administrative Law Judges  
1200 Pennsylvania Ave. NW  
Mail Code 1900L  
Washington, D.C. 20460

A true and correct copy by U.S. mail to:

Eldon McAfee  
Beving, Swanson & Forrest, P.C.  
321 E. Walnut St., Suite 200  
Des Moines, IA 50309

Dated: April 7<sup>th</sup>, 2008

  
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