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**"PUBLIC NOTICE"**  
**"NOTICE DATE": APRIL 13, 2016**

IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR)  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

The IDNR is proposing to approve an application for renewal of an AT (Alternative Technologies) NPDES permit for the facility described below:

**IDENTIFICATION OF DISCHARGER:** Couser Cattle Company  
19568 620<sup>th</sup> Ave.  
Nevada, Iowa 50201

**Discharge Location:** SW ¼ of the NW ¼ of Section 19, T84N, R22W, Richland Township, Story County, Iowa

**Discharge whenever precipitation events cause an overflow would be to:** West Indian Creek

**The designated stream is:** West Indian Creek which is designated as Presumed Class "A1, B (WW-1)." Primary contact recreational use (Class "A1") waters in which recreational or other uses may result in prolonged and direct contact with the water, involving considerable risk of ingesting water in quantities sufficient to pose a health hazard. Such activities would include, but not limited to, swimming, diving, water skiing, and water contact recreational canoeing. Also, Warm water – Type 1 (Class "B (WW-1)"). Waters in which temperature, flow and other habitat characteristics are suitable to maintain warm water game fish populations along with a resident aquatic community that includes a variety of native nongame fish and invertebrate species. These waters generally include border rivers, large interior rivers, and the lower segments of medium-size tributary streams.

**Description of Discharge:** This is a five year renewal of an existing NPDES permit for a combined beef cattle operation using an Alternative Technology (AT) system. Because this is an AT system, the permittee is required to seek technical services of a P.E. licensed in the State of Iowa or a certified AT modeler to perform required annual discharge modeling and, if required, modify the existing installed AT system to improve efficiency in order to meet required discharge performance. Any discharges from the AT system to a water source shall require the discharge modeling. Technical assistance may also be required to conduct monitoring, reporting and maintenance of the existing AT system. The combined operation consists of a confinement portion and an open feedlot site. The confinement portion consists of two deep bedded confinement buildings with a total maximum animal capacity of 2,700 head of beef cattle. The open feedlot portion consists of a conventional open feedlot effluent control system and an AT system. The conventional portion of the system is referred to as the "South system." It is designed for 650 head of cattle and consists of two solids settling basins (SSBs), one vegetative infiltration basin (VIB) and a 2.33 acre land application area. The AT portion of the system consists of two distinct treatment systems referred to as the "North system" and the "Middle system." The "North system" is designed for 1200 head of cattle and consists of three solid settling basins and two vegetative infiltration basins (VIB) followed by one vegetative treatment area (VTA). The "Middle system" is designed for 650 head of cattle and consists of one solids settling basin (SSB) and one vegetative infiltration basin (VIB) followed by one vegetative treatment area (VTA). All systems (AT and conventional) must provide equivalent performance to that achieved by a properly designed and operated 25-year, 24-hour (5.4 inches) runoff control system based on Environmental Protection Agency's (EPA) revised CAFO regulations of December 22, 2008. The alternative treatment system and the conventional system serve the existing 2,500 head of beef cattle on an 8.05 – acre open feedlot with a drainage area of 11.97 acres. Open feedlot effluent and process wastewater will enter all SSBs by gravity. All solids settling basins are designed to conform to NRCS Conservation Practice Standard 350 as well as IDNR requirements and have some storage capacity. Effluent from the North SSBs gravity drains directly to the VIBs through a solid settling structure. The VIBs are graded level and bounded by berms along both sides. The VIBs are underlain with perforated tiles which collect the effluent and gravity drain to a small pump station via underground pipe. The pump station distributes the effluent uniformly across the VTA via gated pipes laid level across the top of the VTA for final treatment. The VTA is graded level from side to side and sloped along its length. Berms along the edge of the VTA contain the flow and prevent it from leaving the VTA prior to the outlet. Effluent from the Middle SSB gravity drains directly to the VIB via an underground pipe. The VIB is graded level and bounded by berms along both sides. The VIB is underlain with perforated tiles which collect the effluent and gravity drains to a small pump station via underground pipe. The pump station distributes the effluent uniformly across the VTA via gated pipes laid level across the top of the VTA for final treatment. The VTA is graded level from side to side and sloped along its length. Berms along the edge of the VTA contain the flow and prevent it from leaving the VTA prior to the outlet. Effluent from the South SSBs is

transported to the VIB by different methods. The larger SSB gravity drains directly to the VIB through a solid settling structure. The smaller SSB gravity drains directly to a small pump station via underground pipe. The pump station distributes the effluent uniformly across the VIB via gated pipes laid level across the top of the VIB. The VIB is graded level and bounded by berms along both sides. The VIB is underlain with perforated tiles which collect the effluent and gravity drains to a small pump station via underground pipe. The pump station distributes the effluent uniformly across the land application area via gated pipes laid level across the top of the area for final treatment. The land application area is graded level from side to side and sloped along its length. Berms along the edge of the land application area contain the flow and prevent it from leaving the area prior to the outlet. The VIBs and VTAs are seeded to a thick stand of perennial grass or a grass mixture tolerant of wet conditions and potentially high nutrient/salt concentrations. Suggested species are Reed Canary grass, Brome grass, Timothy, Fescue, etc. In accordance to Iowa Administrative Code (IAC) 567-65.110(1) "a" & "b" adequate capacity must be provided within the AT system and/or within the solids settling facility to contain expected open feedlot effluent during the winter time "non-growing season from November 1 through March 31," or to hold the 25-year, 24-hour precipitation event, whichever is greater. (In this operation the SSBs and VIBs combined capacity are designed to hold the 25-year, 24-hour precipitation event.). Controls on the entire AT system shall prevent release of collected open feedlot effluent to waters of the United States during the winter time. The solids settling basin and VIBs used in AT systems shall not be required to comply with the liner design and construction requirements of 567 IAC 65.109(7), provided the SSBs and VIBs do not retain collected open feedlot effluent for more than seven consecutive days following a precipitation event during the growing season April 1 through October 31.

The total system thus consists of the North AT system with three SSBs (total volume of 14,238 cubic feet) two VIBs (total area of 0.96 acres and capacity of 62,725 cubic feet) and one VTA (total treatment area of 0.33 acres), the Middle AT system with one SSB (total volume of 18,085 cubic feet) one VIB (total area of 1.16 acres and capacity of 126,324 cubic feet) and one VTA (total treatment area of 0.42 acres) and the South conventional system with two SSBs (total volume of 20,588 cubic feet), one VIB (total area of 1.06 acres and capacity of 92,347 cubic feet) and one land application area (total treatment area of 2.33 acres)

**The annual pollutant load which may be discharged from both "North AT system" and "Middle AT system" shall not exceed the predicted pollutant load that would be discharged to (Unnamed Creek) from a manure control system meeting the manure storage volume and frequency of manure application criteria of SYSTEM 4: APPLICATION AFTER EACH SIGNIFICANT PRECIPITATION EVENT, as outlined in APPENDIX A, 567 Iowa Administrative Code (IAC) Chapter 65 (baseline).** Based on actual monitoring results, the IDNR shall evaluate as to whether or not the discharges (if any) from this operation have caused a violation of the state water quality standards.

**Basis for Limitations in Permit:** Voluntary Alternative Performance Standards, as indicated in EPA AFO/CAFO Rule NPDES Permit Regulation and Effluent Limitation Guidelines and Standards for CAFO; Final Rule December 22, 2008.

Anyone wishing to comment on, or object to, the proposed issuance of this permit must do so in writing, within forty-five (45) days of the notice date shown at the top of this public notice, or thirty (30) days from the publishing date in the local newspaper, whichever is longer, to the Iowa Department of Natural Resources, 502 East 9<sup>th</sup> Street, Henry A. Wallace Building, Des Moines, Iowa 50319. All comments received will be considered in the final determination. If the response indicates significant interest, a public hearing may be held after due notice. If no objections are received within the announced periods, the department will issue a final determination. Anyone desiring a public hearing should cite their specific reasons and a proposed list of topics to be addressed. Copies of this public notice, the proposed permit and other information are on file and available for public inspection from 8:00 A.M. to 4:30 P.M. Monday through Friday at the Department of Natural Resources. Copies of this information may be requested by calling (515) 242-6128.