



Vegetative Treatment Systems for Open Lot Runoff

A Collaborative Report

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Iowa Department
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Preface

Vegetative Treatment Systems for Open Lot Runoff was developed under the leadership of U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) through an Intergovernmental Personnel Act (IPA) agreement, with collaboration from representatives from several land grant universities, USDA Agriculture Research Service (ARS), U.S. Environmental Protection Agency (EPA), Iowa Department of Natural Resources, Iowa Cattlemen's Association, and private sector representatives. During 2004, a work group assembled the current scientific knowledge related to vegetative treatment systems and adapted that information into the recommendations contained within this document. For additional information contact:

Rick Koelsch, University of Nebraska
E-mail: rkoelsch1@unl.edu
Phone: (402) 472-4051

Barry Kintzer, USDA NRCS
E-mail: barry.kintzer@usda.gov
Phone: (202) 720-4485

Dan Meyer, USDA NRCS
E-mail: daniel.meyer@usda.gov
Phone: (202) 720-5023

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- Section 1 Introduction to Vegetative Treatment Systems
 Authors: **Rick Koelsch**, University of Nebraska
Dan Meyer, USDA NRCS
Barry Kintzer, USDA NRCS
Bill Boyd, USDA NRCS
- Section 2 Understanding Environmental Regulations and Procedures for Evaluating Alternative Technologies
 Authors: **Ralph Summers**, EPA
Rick Koelsch, University of Nebraska
 Reviewers: **Larry Wulf**, Iowa State University
Dan Meyer, USDA NRCS
Allison Wiedemann, EPA
John Lawrence, Iowa State University
Carol Balvanz, Iowa Cattlemen's Association
- Section 3 System Options Based upon Vegetated Treatment Areas
 Authors: **Rick Koelsch**, University of Nebraska
Jeff Lorimor, Iowa State University
Bill Boyd, USDA NRCS
John Brach, USDA NRCS
 Reviewers: **Barry Kintzer**, USDA NRCS
Dave Moffitt, USDA NRCS
Charles Clanton, University of Minnesota
Jerry Walker, USDA NRCS
Suzy Friedman, Center for Conservation Incentives at Environmental Defense
- Section 4 Siting Criteria for Vegetative Treatment Systems
 Authors: **Rick Koelsch**, University of Nebraska
Deb Frundle, Iowa DNR
Jeff Porter, USDA NRCS
 Reviewers: **Larry Wulf**, Iowa State University
Jerry Walker, USDA NRCS
Matt Drewitz, Minnesota Department of Agriculture
Joe Harner, Kansas State University
- Section 5 Liquid-Solid Separation
 Authors: **John Nienaber**, USDA ARS
John George, Agricultural Engineering Associates
Rick Koelsch, University of Nebraska
 Reviewers: **Charles Clanton**, University of Minnesota
David Moffitt, USDA NRCS
Bruce Wilson, USDA NRCS
Jerry Walker, USDA NRCS
Jeff Lorimor, Iowa State University
Scott Ressler, North Dakota Stockmen's Association
William Boyd, USDA NRCS

Terminology

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| Animal Feeding Operation (AFO) | Typically used in reference to those livestock and poultry operations that do not require a permit under the EPA NPDES permit program. |
| Concentrated Animal Feeding Operation (CAFO) | Typically EPA or state environmental agency rules define those farms required to have a permit under the EPA NPDES permit program. |
| Effluent Limitation Guidelines (ELG) | These are the design and operating standards that a CAFO must meet to maintain compliance with the 1972 Federal Clean Water Act |
| Large CAFO | Typically national EPA or state environmental agency rules define those farms considered to be a Large CAFO based upon size. More than 1,000 beef cattle, 1,000 dairy heifers, or 700 mature dairy cows would be defined as a large CAFO by EPA regulations. |
| Medium or small CAFO | A permitting authority (EPA or state environmental agency) can define or designate an AFO as a CAFO based upon combination of size and environmental risk. See section 2 or http://www.lpes.org/cafo/02FS_Permit.pdf for more information. |
| National Pollution Discharge Elimination System (NPDES) | Commonly used to identify a EPA permit program created for point sources of pollution (including CAFOs) under the 1972 Federal Clean Water Act. |
| Permitting authority | A state regulatory agency or regional EPA office with the authority to write an NPDES permit for an individual CAFO. |
| Standard Operating Procedure (SOP) | A written procedure used to define the specific steps to be followed in the operation and maintenance of an agricultural system. |
| U.S. Environmental Protection Agency (EPA) | This agency has responsibility for administering water quality regulations related to animal feeding operations. |
| Vegetative Infiltration Basin (VIB) | A shallow basin containing perennial grass or forages through which all collected runoff water must infiltrate. Typically these systems include a tile drain system for collecting the infiltrate and bringing the treated runoff to the surface for additional treatment or application to grass or cropland. |
| Vegetative Treatment Area (VTA) | A vegetative area composed of perennial grass or forages used for the treatment of runoff from an open lot production system or other process waters. |
| Vegetative Treatment System (VTS) | A collection of treatment components, including at least one component based upon vegetation treatment that is used to manage the runoff from an open lot production system or other process waters. |

