

## A CALL TO BREAK FROM TRADITION – ZERO DISCHARGE

Iowa's rural heritage, and the heritage of rural America, is closely tied to the management of environmental resources from pastures, farm fields, open spaces, to wetlands and woods. However, resource management is often viewed on a parcel by parcel level. Passing flood waters, untreated sewage and sediment to our neighbors has, and still is, a common practice if perceived costs are too high. "Not in my backyard" becomes "From my backyard to yours ... enjoy".

Aldo Leopold was right when he wrote in 1949 that it can not be right, in the ecological sense, to pass troubles to our neighbors just as our neighbors pass it on to us.

Rapid innovative advancements managing surface water discharges, driven by economics and regulations (including permits authorized by the Clean Water Act and the National Pollutant Discharge Elimination System), have combined over the past 17 years to develop best management practices which are now relatively mainstream. Included in these innovations are no-till agriculture, upgraded technology at Publicly Operated Treatment Works and hundreds of soil conservation practices.



Although advancements in sewage treatment have been implemented throughout Iowa, innovation is lacking in rural communities, specifically small communities which have limited resources to manage raw sewage. Barker Lemar staff have first-hand experience screening solids from effluent just before being discharged into surface waters. Participating in this effluent screening activity provided an incredible "reality check" – reinforcing

the immediate need for low cost, effective sewage management in small, rural communities.

Barker Lemar has initiated discussions with state and federal stakeholders that have financial resources and are interested in assisting small communities attain zero discharge status for their sewage treatment works.

**Barker Lemar is actively searching for small communities with populations near 200 that are interested in implementing innovative zero discharge sewage management systems that discharge no effluent to surface streams. Grants and low interest loans are available and an alternative zero discharge application may very well qualify for such funding.**

If you know of a community that is motivated to make a change please have them call Matt Nieswender, Senior Project Manager at [mnieswender@barkerlemar.com](mailto:mnieswender@barkerlemar.com) or 800.707.4248.

### TRAINING DATES

#### 10 Hour Landfill Operator Training

November 13, 2007 Union County, IA  
December 19, 2007 Des Moines, IA  
February 19, 2008\* March 20, 2008\*

#### Appliance Demanufacturing Training

December 11, 2007 Des Moines, IA  
April 15, 2008\* July 15, 2008\*

#### 25 Hour Landfill Operator Training

January 8-10, 2008\* April 29-May 10, 2008  
July 29-31, 2008\* October 21-23, 2008\*

For more information or to register, please contact Nicole Tuel at 800-707-4248 or [ntuel@barkerlemar.com](mailto:ntuel@barkerlemar.com)

\*Location has not been determined, please visit [www.barkerlemar.com](http://www.barkerlemar.com) for updated locations

## ENDANGERED SPECIES ACT COMPLIANCE: SOONER RATHER THAN LATER IS BEST

Barker Lemar staff have recently completed several biological assessments for clients required to comply with the Federal Endangered Species Act and State requirements. A fundamental tenet of working through these two pieces of legislation and complying with the requirements within each involves STARTING EARLY.

The Endangered Species Act requires public and private land developers to determine if their activities will jeopardize the continued existence or result in the incidental take of endangered or threatened species.

This process of compliance with this Act often begins with an initial consultation from the US Fish and Wildlife Service (USFWS) and the Iowa Department of Natural Resources (IDNR). Representatives from these organizations will review the project area using maps and photographs and advise clients and consultants regarding the potential for critical habitat or endangered/threatened species in the project area. If these species and/or their habitat is thought to exist in the project area, field observations using generally accepted surveying techniques must be initiated during the blooming, growing, and/or active season of the selected species.



Field work and reporting, depending upon the size of the project area, may require 16 – 20 months before any required permits are issued. Field work for a Biological Assessment (potentially for more than one animal and/or plant species), initiation of informal and formal consultation with the USFWS, and the development of a Biological Opinion may be required. Each of these steps provides a maximum number of days for regulators to provide comment, conclude consultation, and develop a formal report. Each step in the process can realistically take weeks or months. Additionally, formal recommendations from regulators may cause additional engineering/design delays as changes in the final design, final monitoring plans, and final reporting requirements may be required before a permit is issued.

Several variables can rapidly change administrative procedures and field reporting. State and U.S. Supreme Court rulings have recently driven changes in policy; policy changes in turn create a fluid environment for field researchers, project managers, and property owners. New information from field research can also

drive changes in the type and location of field sampling within small geographic pockets. For example recent U.S. Supreme Court rulings and resultant guidance from the United States Environmental Protection Agency (EPA) has recently (as of June 2007) changed the methods used to record and delineate jurisdictional wetlands. Some of these changes have required field staff to re-visit project areas delineated in 2006. Another change from USFWS requires more active field sampling of Indiana Bats when potential bat habitat is identified in the project area. Simply grubbing trees in the winter is no longer an acceptable method of avoiding incidental take of this endangered species.

Barker Lemar recommends that correspondence from Federal and State regulators that are more than 4 months old should be verified as up-to-date and still applicable before construction activities begin on a new parcel. Barker Lemar also recommends that our clients open fresh dialogue with the regulators mentioned previously before moving dirt, grubbing trees, or performing similar construction activities that may disrupt the site.

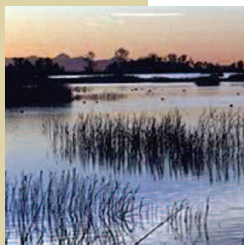
Barker Lemar can assist clients with obtaining the appropriate permits to comply with provisions of the Endangered Species Act and the Clean Waters Act. Trained staff is available to perform field sampling, obtain appropriate permits, complete delineation/mitigation services, and design/monitor required conservation measures.

To discuss your environmental planning and permitting needs, please contact Matt Nieswender, Senior Project Manager at [mnieswender@barkerleamar.com](mailto:mnieswender@barkerleamar.com) or 800.707.4248.

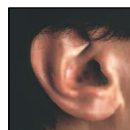
## BAKER LEMAR ST. LOUIS MOVES TO NEW LOCATION

The Barker Lemar St. Louis staff is on the move! We are pleased to call 150 Hughes Lane, St. Charles, Missouri home and we are open for business. Please call on our Missouri team of professionals for Assessment, Remediation and Compliance Management Services, Integrated Solid Waste Management Services and Information Technology Applications.

For immediate assistance, please contact Mike McCarrin at [mmccarrin@barkerleamar.com](mailto:mmccarrin@barkerleamar.com) or 800.707.4248.



LISTENING ▶ UNDERSTANDING ▶ SOLVING ▶ IMPLEMENTING

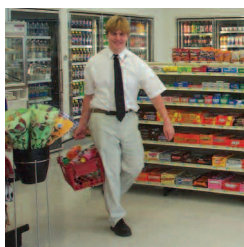


# Regulatory Update

## EPA PUBLISHES MANDATORY UST OPERATOR TRAINING GUIDELINES

The EPA has issued final guidelines that states must follow when developing mandatory UST operator training programs. The operator training requirements were mandated by the controversial underground storage tank provisions in the Energy Policy Act of 2005. The guideline does not establish a federal training program for c-store operators. They provide minimum criteria state UST administrators must follow when implementing their own training program regulations.

**UST Operator Classes** - The guideline requires states to establish three separate classes of employees, identified as Class A, Class B and Class C, who must undergo mandatory UST operator and maintenance training.



**Class A Operator** - Has primary responsibility to operate and maintain the UST system. In general, this individual is typically in a management position and focuses on the broader aspects of UST statutory and regulatory requirements, including supervision of

employees that operate and maintain UST systems (generally c-store managers and clerks). For example, the Class A operator must have a general knowledge of the UST system including spill prevention, overflow prevention, release detection, corrosion protection, emergency response, product compatibility, financial responsibility documentation requirements, notification and reporting and operator training requirements.

**Class B Operator** - Implements day-to-day aspects of operating, maintaining and recordkeeping for underground storage tanks at one or more facilities and must have a general knowledge of UST systems and related equipment. This individual (possibly the c-store manager) typically monitors, maintains and ensures that release detection methods, recordkeeping and reporting requirements are met; that all equipment complies with performance standards; and employees are trained to properly respond to UST emergencies at the facility where they work. Compared with training for the Class A operator, training for the Class B operator will provide a more in-depth understanding of operation and maintenance aspects, but may cover a more narrow breadth of applicable regulatory requirements.

**Class C Operator** - Generally, the first line of response to events indicating emergency conditions (c-store clerk). This individual is responsible for responding to alarms or other indications of emergencies and for notifying emergency responders as well as Class A and B operators. At a minimum, the Class C operator must be trained in emergency response procedures.

A single employee may represent all three classes. In addition, for facilities such as cardlocks, no trained employee is required to be present on site.

**Compliance Deadline** - States must adopt an approved training program by August 8, 2009 and ensure that Class A, B, and C operators are trained according to state-specific training requirements by August 8, 2012

**Training Schedule** - Class A and B operators must be trained within 30 days or another reasonable period specified by the state, after assuming operation and maintenance responsibilities at the underground storage tank system. Class C operators must be trained before assuming responsibility for responding to emergencies. Retraining must occur at least once per year in addition to anytime the UST system is not in compliance.

**Training Requirements** - States may select from several training methods including an operator training program conducted or developed by the state or by a third party that has received prior state approval. The program may include in-class, on-line or hands-on training. States may require an appropriately administered and evaluated verification of operator knowledge (i.e., examination). The state or a third party acceptable to the state may administer this examination. For Class C operator training, the state may accept training conducted by a trained Class A or Class B operator. The state may combine any of these three training approaches or comparable training approaches recognized by the state.

For more information on UST Operator Training, contact Thomas E. Draur, P.E./tdraur@barkerleamar.com or Matt Nieswender/mnieswender@barkerleamar.com at (800) 707-4248.

## CHAPTER 113 UPDATE

The Administrative Rules Review Committee (ARRC) met on Tuesday, September 11, 2007 to discuss the proposed Chapter 113. After hearing an update of what has progressed since the last ARRC meeting on August 14, 2007 from Richard Leopold, Director of the Iowa Department of Natural Resources (IDNR), the ARRC requested to hear from those who still took exception to the proposed 113. Terry Johnson from Waste Management, Inc. presented what he felt had occurred since the last August meeting, citing a meeting that had occurred with the IDNR the week before. The ARRC requested the discussion be completed by noon in order to keep previously scheduled meetings. While several others had the chance to speak very briefly, the ARRC quickly called to vote delaying the rules for 70 days (which puts it at November 20, 2007). The ARRC hopes the IDNR will come to a resolution prior to that date with stakeholders who have outstanding concerns with specific aspects of the proposed rule. The proposed New Landfill Rules Seminar to be jointly hosted by ISOSWO and the IDNR has been delayed from November 1 and 2, 2007 until such time that it can be rescheduled upon resolution of the new Chapter 113.

For more information please contact Christine Collier or Tim Buelow at (800) 707-4248.

## BARKER LEMAR WINS URBAN STEWARD AWARD

The Polk Soil and Water Conservation District awarded Barker Lemar Engineering Consultants the 2007 Urban Steward Award.

The company was recognized for efforts that resulted in the installation of soil and water saving practices at their corporate headquarters in West Des Moines.



Participating in the award presentation were (left to right) Mike Barker, president of Barker Lemar Engineering Consultants; Paul Miller, District Conservationist; Jane Clark, Polk SWCD Chair; and project engineer John Franklin, Barker Lemar Engineering Consultants.

## THE BOTTOM LINE ON WASTE REDUCTION

Barker Lemar Engineering Consultants has been successful in Iowa assisting solid waste agencies evaluate their planning areas base year tonnage and establish a more accurate waste reduction percentage calculation. These efforts have saved individual clients more than \$300,000 in state tonnage fees per three year planning cycle.

The success of this work can be attributed to the dedication of our clients and the experience of the integrated solid waste management staff at Barker Lemar. "Our team of solid waste planners and researchers take the time to listen to our clients, understand local conditions and perform detailed research", explains Matt Nieswender, Senior Project Manager and Team Leader. Jeff Phillips, Project Manager explains further, "Some industrial, commercial, and residential waste streams have never been accounted for, we work with clients to uncover some of these 'forgotten' streams and work to quantify identified waste streams that could assist our clients".

With new expenses on the horizon for Iowa landfills, solid waste disposal organizations need to continue identifying opportunities to save money.

Please contact Jeff Phillips if you would like to discuss options for establishing a more accurate base year tonnage, and potentially reduce tonnage fees for your solid waste agency. [jphillips@barkerleamar.com](mailto:jphillips@barkerleamar.com) or 800.707.4248

## METRO WASTE AUTHORITY GREEN RUN

The Metro Waste Authority proudly presented the first ever Green Run at the Metro Park East Landfill on Sunday, September 16, 2007. The Green Run included a 5K fun run/walk and a 10K cross country road race.

Located just east of the Iowa State Fairgrounds, the MWA Green Run challenged runners physically while showing off the scenic landfill. Athletes were treated to views of restored prairie and wetlands, as well as recycling and water protection at work along the course route.

Several Barker Lemar employees participated, with A.J. Montefusco and C.J. Lage placing first and third respectively in their age divisions of the 10K run.

Next year's Green Run is scheduled for Sunday, September 21, 2008. Visit [www.mwatoday.com](http://www.mwatoday.com) for more details and registration information.



### EMPLOYEE SPOTLIGHT:

Name: Darren Fife

Title: Project Manager

Technical Expertise: Specializes in the assessment, remediation and compliance management of underground storage tank systems.

Professional Goals: Qualify as a Certified Groundwater Professional this year.

Education: Bachelor of Arts in Environmental Science and Policy from Drake University.

Hobbies: Spending time with family, kayaking, painting, golfing and making wine.

Family: Wife Dena, daughter Olivia, 2 years old, and son Rylan, 1 year old. Dog Barney, a pug, and cat Pongo, an Asian leopard.