Local Services

2006

Annual Report

Local Services Introduction

The staff of the Environmental Complaints and Local Services (ECLS) Division are the hometown faces of DEQ, providing prompt responses to environmental complaints and friendly, professional service to their local communities. Seventy Environmental Specialists, distributed among 30 offices across the state, work among family, friends and neighbors, ensuring that Oklahoma's environment is protected and that all citizens who call on the agency receive the assistance they need.

Superior customer service is the foundation of ECLS. We realize that citizens are, in fact, customers of the agency. As such, they are entitled to fast, professional assistance. We aim to establish new levels of customer service for a government agency, levels that meet and surpass the public's expectations. This way of thinking is present in every ECLS program, from on-site sewage treatment to environmental complaint investigations and emergency responses. To focus our commitment to excellence, ECLS uses satisfaction surveys and accountability measures to gauge how well we are doing. Feedback guides our future activities, ensuring that our ability to meet citizens needs constantly improves.

Our commitment to assist every citizen who calls or comes to any DEQ office is reflective of our deep respect for the public. In ECLS, we believe strongly that the citizens of Oklahoma are entitled to a government by the people and for the people, as promised by our Constitution. By keeping the focus on our customers, ECLS strives to ensure that the citizens of Oklahoma enjoy a clean and healthy environment for generations to come.

Responsibilities for multiple programs require local DEQ staff to wear many hats.

Help for a Small Town

Nic Huber (right) works with Jennings wastewater operators to assess the lagoon.

Small towns contribute to the idyllic nature of life in Oklahoma. Communities of fewer than 1,000 people are tiny oases in the prairie, serving townsfolk and the surrounding countryside with shops, schools and entertainment. Rural towns frequently offer a rustic and charming way of life that is one of the most attractive reasons for moving to our state.

With generally low crime rates and lack of crowding, small towns avoid many of the shortcomings of metropolitan areas. Nevertheless, they can also be plagued by the same problems that face larger communities, such as outdated and decrepit water and wastewater systems. Without a sufficient tax base to fund system repairs, upgrades and professional advisors, small towns can be trapped by water or wastewater problems that they cannot correct without assistance.

Jennings, Oklahoma, is one example of such a town. Located in rural Pawnee County along Highway 99, Jennings' 400 residents depend on a multi-cell community lagoon for wastewater disposal. The outdated public sewer system that connected residences to the lagoon was subject to ground water infiltration, bypasses and line collapse. The lagoon itself was overloaded by the volume of ground water entering the system with each new rainstorm.

The town government, although aware of the imminent failure of vital sections of the system, was paralyzed by the magnitude of the problem. Officials and the system operator didn't know which piece of their failing system to attend to first. The cost of any significant repair would swamp the town's small budget. To make matters worse, the town was facing DEQ censure for failing to correct the situation.

DEQ investigator Nicholas Huber was determined to help town officials find a solution. The environmental impacts of the overflows and bypasses were unhealthy; they could not be left untended. But Huber understood that the town was overwhelmed. If he were to compound their problems with citations, warnings and demands for action, the situation could only go from bad to worse. He decided to approach the town government differently.

Huber came to Jennings with a dual strategy, as both advisor and regulator. He spent many hours working with Jennings officials to formulate a practical plan for correcting the town's sewage problems. Together, they identified the parts of the sewer system that needed immediate repair and then established a means to fund the remaining, near-term renovations. Their plan was built upon decisions made by the town government and system operator. Huber also assisted the town in locating equipment for smoke-testing the sewer system, realizing much-needed budget savings that the town could redirect elsewhere.

The town of Jennings is now quickly repairing its sewer system, fixing problems that could have cost additional time and money to resolve. Plans are in place for a renovated sewer system, and the bypasses and overflows have been stopped. When regulators and city officials work together to solve some of the tough environmental problems facing Oklahoma's rural towns, communities get assistance they badly need. DEQ hopes to continue to help them thrive and provide the kind of hometown life that makes this state one of the best places to live in the nation.

Interdivision Cooperation Aims to Help Pawnee County Subdivision

About 30 years ago, in the 1970s, the Alto Acres subdivision was developed on the western edge of Lake Keystone in Pawnee County. Alto Acres offered lakeside home sites complete with public water service and a community lagoon. In this idyllic location, 24 houses eventually were constructed, along with a small store. Homeowners enjoyed living on tree-lined streets within walking distance of Lake Keystone. After a while, however, the community sewage system began having problems.

By the 1980s, sewage was occasionally bypassing the collection system and the lagoon itself was frequently overflowing. When property owners started looking for answers, they discovered that no one individual or organization seemed to be accountable. Lacking a responsible party, they could not initiate corrective action or apply for funding for repairs. From time to time, incremental repairs were made, but the core problems went unaddressed for 20 years.

Early in 2005, representatives from DEQ's Water Quality Division (WQD) and the Environmental Complaints and Local Services Division (ECLS) met to discuss Alto Acres' situation. The longevity of the problem demanded a breakthrough solution from innovative, outside-the-box thinkers. Agency staff responded by challenging themselves to find *the* answer. Within a short time, a corrective strategy involving both divisions had been drafted and put into motion.

First, a site assessment revealed that 12 of the 24 residences had already installed on-site systems and were no longer discharging sewage. The remaining residences were also on lots large enough to accommodate such systems. WQD notified the homeowners that the community's sewage problems needed attention, and ECLS met with them to discuss options. The agency negotiated agreements with each resident still discharging sewage to install individual, on-site treatment systems. Local environmental specialists contributed soil testing at no charge to determine the best system for each lot. Two residents were eligible for need-based grants for construction of their systems.

Overflowing manhole at Alto Acres.

Final plans are being drafted to close the old community lagoon that once leaked raw sewage into Lake Keystone. The Alto Acres neighborhood has become a much nicer place, thanks to creative and determined environmental staff who were able to think beyond the usual modes of operation to find a practical approach to protecting the community's environmental health.

Alto Acres subdivision lagoon after years of neglect.

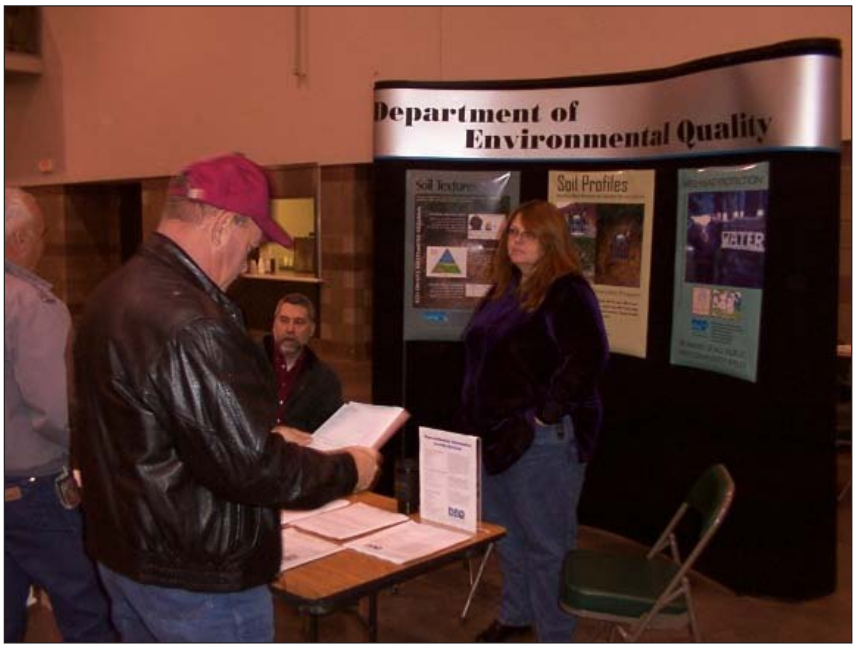
ECLS, OCIA Foster Cooperation Within On-Site Treatment Industry

ECLS and the Oklahoma Certified Installers Association (OCIA) have joined forces to educate installers about the newest trends in the on-site sewage treatment industry. At the same time, they want to learn from the installers' experiences and concerns. At the 2006 Certified Installers' convention, ECLS and OCIA co-hosted a forum for an open exchange of ideas and news.

For the conference, ECLS staff coordinated classes on a new method of classifying soils at sites destined to contain an on-site system. The soil profiling technique, taught by Dr. Brian Carter of Oklahoma State University, delivers more accurate results than percolation tests. With it, systems can be chosen for particular properties in accord with specific soil and weather conditions.

The forum also gave ECLS a chance to explain current enforcement activities and rule recommendations. Then ECLS inspectors listened carefully to industry issues, including the experiences of installers working in the field. Some expressed concerns about how the agency's regulatory programs were being implemented. This information is being used to improve efficiency and effectiveness in DEQ offices across the state.

Taking advantage of opportunities to work together such as the OCIA conference, installers and inspectors both can become more effective advocates for improvements in the treatment of wastewater across rural Oklahoma, providing superior service to citizens.



The 2006 OCIA conference was the first time DEQ had a display with information for installers.

Ronnie Brison is showing certified installers the different soil types.

ECLS Complaints Office: Always There to Take the Call

A day in the life of the Environmental Complaints Office staff finds them settling in at their desks shortly before 8:00 a.m. The after-hours hotline operator will soon transfer the phone back to them — Mondays are busy. Sure enough, at 8:01, two phone lines ring. One citizen cannot find the number for a city office and the other needs to know whom to talk to about the fish in his pond. Complaints staff give both citizens contact names and phone numbers. During the next 8 hours, the phone will ring about 40 times.

Most callers are concerned, some are angry, a few are frightened. All are looking for help. The staff will try to fill the needs of each one. About 18 of the calls received during the day will result in an environmental complaint that DEQ will either investigate or refer to another agency. The complaints may be about problems as diverse as sewage pooling in someone's yard, dust coming from a construction site, a foul-smelling city sewer lagoon, or tap water that has suddenly acquired an unusual taste. These complaints fall under DEQ's jurisdiction and will be sent to local staff for investigation. Other complaints, such as those about an airplane spraying chemicals off-target, manure from a feedlot running into the favorite fishing hole or a pipeline leaking crude oil, will be referred to other federal, state and local agencies for investigation.

Occasionally, the Complaints Office receives calls concerning problems that no agency can fix. Such

Complaints Office Staff (left to right): Jennifer Robbins, Wesley Henderson, Lynne Moss and Janie Bender.

was the call from a woman with homing pigeons that returned covered in oil; she was looking for someone to help locate the oil source. Or the gentleman who brought in a plastic Easter egg found on the side of the road; he thought it made his hands tingle and his face itch, and he wondered if we could test the egg and the area where he found it, in case a child had touched it. And the woman who was looking for help deterring squirrels and deer that were eating her house. Then there are the calls about the neighborhood teenager who plays his car stereo too loudly, the neighbor who is doing "something bad" in his backyard, or strange odors in the neighborhood.

At the end of the work day, the hotline is forwarded to an after-hours operator. This ECLS staff member will continue answering calls for assistance from a cell phone at home. After-hours calls are much like those received during the day, but often a little more urgent. There could be sewage spewing from a manhole in someone's backyard, no water pressure in a neighborhood, a fish kill in a river, or the discovery of a rock from "outer space."

The Complaints Office's days and nights are filled with people looking for someone to provide assistance, someone to listen to their stories, or sometimes for someone to hear their anger. The duty of the staff is to ensure that the caller's needs are met to the best of the agency's ability. Complaints Office staff all strive to provide each and every citizen who calls the very best service possible. Our mantra is "always there to take the call."

Wellhead Protection Plans: ECLS Prepares Communities to Protect Drinking Water

Ground water represents a vital source of drinking water for many people. Ninety-seven percent of our planet's available fresh water is ground water; only 3 percent is in streams, rivers and reservoirs. Innumerable communities and individuals depend on ground water to supply their homes, businesses and industries. In Oklahoma, more than 300 towns and cities and countless individual homes rely on the state's major ground water basins and aquifers for drinking water; ground water meets more than 60 percent of the state's potable water needs.

Christa Welch checks out the new signs DEQ will provide towns that participate in wellhead protection.

More often than not, ground water in our state is pristine and can be directly consumed with little or no treatment. Some wells have provided clean, fresh water for decades, even for centuries, with no significant change in water quality. However, increasing rates of rural growth and changing land use practices have placed some wells in danger of contamination. Industrial spills, overuse of fertilizers and pesticides, improperly installed septic systems – all are detrimental activities that

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adversely affect ground water quality.

Once contaminants reach an aquifer, they may make the water unsuitable for drinking and can be costly to remove. To combat this threat, ECLS staff have joined forces with local government officials. The officials are developing wellhead protection plans to establish zones of protection around their communities' ground water wells. The plans identify all potential sources of contamination within the protection zone and the best-management practices that will reduce the risk of pollutants reaching the aquifer.

ECLS personnel are lending their expertise, helping to identify potential contamination sources and advising officials about how to work with landowners to eliminate ground water hazards. A primary strategy of wellhead protection planning is to educate water consumers. ECLS has created and compiled easy-to-use programs, presentations and materials that water utility officials can distribute as inserts with water bills and for use in public presentations. The materials focus consumer awareness on the location of ground water sources and how to protect them.

The wellhead protection program represents a true paradigm shift for the agency: using education and awareness to empower ground water consumers to protect ground water quality for themselves. Rather than endure the slow, costly process of remediating a contaminated aquifer or paying for new wells to be dug after a spill, communities are taking action to prevent contamination from occurring at all. Based on the adage that "an ounce of prevention is worth a pound of cure," communities are putting plans into place to ensure that they and generations to come can enjoy clean, fresh water straight from the well.

ECLS Assists EPA With National Standards for On-Site Sewage Treatment Systems

As the nation grows, increasing attention is being focused on rural wastewater management techniques. Across the country, on-site sewage treatment systems serve approximately 25 percent of all homes. The systems, used in about one-third of all new housing and commercial development, have captured the attention of the U.S. Environmental Protection Agency (EPA). EPA plays an advisory and coordination role in support of DEQ's regulatory jurisdiction over Oklahoma's on-site treatment systems.

A group meeting with Richard McDaniel, Robert Huber, Kim Massey and Pam Bateman (standing) to discuss EPA's guidance.

In October 2005, EPA Region 6 hosted a symposium to discuss solidifying its partnership with state environmental agencies. ECLS representatives attended to share from Oklahoma's point of view. Basing their comments on practical experience, the representatives pointed out the several benefits of on-site treatment systems: They can protect public health and the environment; construction and maintenance typically are economical; they are appropriate for many different types of terrain; and they can be suitable for ecologically sensitive areas.

ECLS stressed the utility of designing on-site systems to meet specific user needs and conditions, along with the importance of educating property owners to maintain their systems properly.

ECLS specialists are the primary inspectors and enforcement personnel for Oklahoma's on-site sewage treatment program. These highly trained and experienced professionals possess years of experience locating, designing and maintaining on-site systems. At the symposium, ECLS was a significant contributor to the national voluntary construction and operation standards that are the focus of EPA's mission to improve the performance of on-site systems.

ECLS is earning a national presence in the dialogue about the appropriateness and utility of on-site treatment systems. Spreading the word about how rural wastewater can be managed in ways beneficial to the environment is a hallmark of the division. ECLS is pleased to contribute to the national effort to support sustainable rural growth.

ECLS and the Clean Vessel Act: An Oklahoma Success Story on the Horizon

Oklahoma's rivers and lakes are treasures, providing natural habitat for a multitude of species and offering pristine views and recreational opportunities. Oklahomans often explore the 11,000 miles of shoreline and 78,000 miles of rivers and streams aboard recreational boats. An afternoon or weekend spent boating is relaxing, but boaters occasionally cause problems by dumping raw sewage into the water. This practice spreads disease and causes algal blooms that stress fish and other aquatic animals.

Most areas where boats congregate – harbors, anchorages and marinas – are naturally sheltered. Sewage entering such water is likely to concentrate rather than flushing into open water. The lack of convenient, well-maintained pump-out stations has been a major cause of marine sewage dumping. ECLS, in partnership with the U.S. Department of Interior, and the Fish and Wildlife Service is helping to alleviate this problem by administering the Oklahoma Clean Vessel Act Program (CVAP).

CVAP reimburses marina owners for about 75 percent of the eligible costs of constructing and renovating pump-out and dump stations for recreational marine vessels. The program, funded from taxes on fishing tackle and motorboat fuels, has already helped to construct four new pump-out facilities on Oklahoma lakes.

Besides reimbursing costs, CVAP ensures that new pump-out stations are reasonably priced and well-located, increasing the likelihood that boaters will take advantage of the facilities. CVAP is a direct, practical solution that will help recreational boaters protect Oklahoma waterways. Better water quality will improve everyone's recreational experience, while contributing to more abundant aquatic life and a healthier environment overall.

Pump-out stations at marinas help reduce the potential for sewage being dumped directly into Oklahoma lakes.

ECLS Helps Muskogee Deal with a Trashy Surprise

Seventy years ago, dumping trash in the most convenient place away from town was state-of-the-art solid waste management. Today, managing solid waste is a science that relies upon waste reduction, recycling and proper disposal of debris. Modern sanitary landfills are designed to protect both public health and the environment. Often they are so well maintained that many passers-by have no idea that several tons of solid waste are safely entombed in that grassy hill next to the highway.

Solid waste disposal sites have not always been so pleasing to the eye. Until the 1960s, trash commonly was left in unregulated dumps on the outskirts of communities, typically on land that was not farmable and that had little potential for development. When laws came into being that required trash to be deposited at permitted landfills, these old dumps were often buried to prevent further use. With time, many of these sites were lost to memory. Occasionally the old, buried dumps are rediscovered, presenting problems for present-day developers. Recently, for example, a rediscovered trash dump caused headaches for the city of Muskogee and a local developer.

In late 2005, Trilogy Development, Inc. began the work to prepare property on the outskirts of Muskogee for constructing a farm tractor supply store. Located along a major highway, the property was a prime location representing a potentially profitable investment opportunity for the company. But as work progressed, a disturbing problem began to develop. As workers excavated soil to build a storm water holding pond, they discovered that the entire site was located on top of a buried trash dump. Leachate, a liquid formed when water flows through garbage, began seeping into the pond from the buried trash.

The developers and the city found themselves in a quandary. The storm water holding pond was required by city building codes and state regulations to manage rainwater flowing from the site. But the leachate could not be allowed to escape into the pond, which was designed to drain into a nearby creek when full. Proceeding with construction could cause an environmental catastrophe. Seeking guidance, the developers and the city contacted ECLS.

ECLS inspectors were uniquely qualified to address the situation. ECLS staff combined guidance from Water Quality and Land Protection division engineers with technical information from the city to seek a course of action that addressed all aspects of the situation. Working with all parties, local specialists were able to present a solution that allowed construction to proceed in a way that protected the environment from future harm. The plan that ECLS proposed focused on development and site management

The development site prior to the City of Muskogee and DEQ's intervention.

practices distilled from years of successfully regulating stormwater and solid waste regulations. The developer was allowed to remove the drainage pipe and pond that were required by the city, filling in the disturbed soil with clean fill and establishing vegetation to control erosion. Areas where the protective soil cap had been damaged were repaired and vegetated, safely entombing the buried solid waste. To control rainwater, a leak-proof pipe was installed to channel uncontaminated rainwater away from the site and into a nearby creek.

After discussing the issue, the developer and the city agreed to the proposal brokered by ECLS. Now the discharge has been eliminated. The offending pond has been filled in and the stormwater control system discharges only clean, uncontaminated rainwater.

Soil Profiling Leads to Better On-Site Sewage Treatment Systems

A revolution is quietly taking place in the on-site sewage treatment industry in Oklahoma. Percolation tests, the age-old method of determining the type of system most appropriate for a particular land parcel, is being replaced with a technique called soil profiling. Soil profiling delivers more accurate results, resulting in on-site systems better suited to the property's specific soil and weather conditions. The method has fundamentally changed the way agency staff assess site conditions when designing on-site systems.

Local specialists provide a detailed characterization of soil type using hand-texturing methods, giving property owners a better understanding of the ground beneath their feet. This ensures that the type of system recommended will handle the wastewater that is sent to it. The agency's soil profiling technique was pioneered by ECLS Program Manager Robert Huber and Dr. Brian Carter of Oklahoma State University. ECLS and Dr. Carter

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Matt Pace shows ECLS staff how to identify layers of different soil types.

have been working to get the word out to on-site system installers across the state at training and recertification classes.

The results of their work are showing. Several soil profiles have been performed at sites when shallow ground water or rock layers were observed by installers during system construction – problems that were not accounted for during percolation testing. In each case, the profile indicated that the type of on-site system specified by the percolation test was inconsistent with site conditions, and that a different system type should be used.

Soil profiling has prevented construction of systems that would almost certainly have malfunctioned. As more installers learn about the superior results of soil profiling, they are constructing on-site systems that work better and last longer than ever before. The improved on-site systems give more value per dollar to Oklahoma homeowners, and also provide better protection to the environment, a combination that is definitely hard to beat.

The placement of on-site sewage treatment systems is enhanced when soil profiles are used.

This photograph shows how groundwater impacts the color of soil.