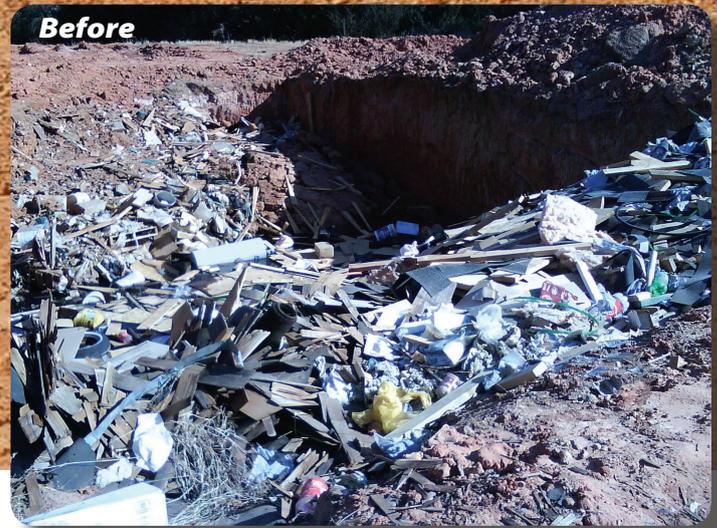


# **Environmental Complaints and Local Services**

**A NEW Decade:  
A NEW Environment**



*One of DEQ's main goals is the repair of existing environmental damage.*

## ECLS Tries New Methods in New Decade

**D**EQ's main aim is the repair of existing environmental damage and the protection of the environment in the new decade and for future generations. Staff members of the Environmental Complaints and Local Services (ECLS) division have played their part in preserving Oklahoma's water, land and air. Because ECLS division employees regularly work in the communities they serve, they see firsthand what has been accomplished and what needs to be done.

For instance, regulations for minor water systems have been strengthened recently, while the new paperless InfoPath inspection forms have made the inspection process and accompanying record keeping more efficient.

When the enforcement model isn't effective, new ways of solving environmental problems have been developed. In fact, in fiscal year 2010, two ECLS employees helped solve the dilemma of a failing home sewer system owned by a financially struggling

single mother. The ECLS employees told her story to two certified private installers, who took it upon themselves to get involved.

Supplemental Environmental Projects (SEPs) offered another way to conduct business outside of standard operating procedures. With SEPs, environmental offenders were given a chance to perform tasks instead of paying part or all of their fines. In one case, two ECLS employees used the method to clean up a long-abandoned asphalt plant.

However, it hasn't always been easy to revise the standard mode-of-operations. In FY 2010, ECLS staff members promoted soil profiles in the use of building on-site sewage treatment systems. Some property owners balked at the change, but ECLS staff members persisted, knowing that soil profiles provide information that will lead to new sewer systems less likely to cause environmental pollution. In 2010, as it will in the next decade, ECLS worked to be efficient, effective and responsive to all the citizens of Oklahoma.



*Environmental Specialists Chris Ackerman and Beth Ledbetter identify sand, silt and clay content by the soil's texture.*

## Shifting Perceptions about Soil

**E**nvironmental Complaints and Local Services (ECLS) is committed to improving the design of on-site sewage treatment systems – even if it takes multiple, patience-trying approaches to do so. In FY 2010, one case in western Oklahoma illustrated the division's philosophy.

It started when Environmental Specialist Beth Ledbetter performed a soil profile at a new home construction site. All ECLS specialists are certified soil profilers, meaning they are trained to identify sand, silt and clay content by the soil's texture. While investigating failed systems for the treatment of household wastewater, ECLS staff members discovered that on-site systems improperly installed for the soil conditions will probably not work for long - or may not work at all.

Most of the time, the failed systems were designed with a percolation test. This method, which had been used for several decades, measured how fast a given soil could absorb water. However, the percolation test missed several important factors. The systems' failures often were caused by high ground water, impermeable soil or clay content, all of which could have been identified by the soil profile method. In this case, when Ledbetter performed the soil profile at the construction site, she discovered the presence of silty clay loam. She called for the installation of 880 feet of subsurface absorption trench.

The builder, believing that only 300 feet of trench was needed, balked at the larger recommendation. He didn't understand how Ledbetter could feel the

texture of the soil in her hand to determine the length of trench needed for the system.

To provide the builder with a second opinion, Environmental Specialists Chris Ackerman and Klent Lasley traveled to the site and performed an additional soil profile in the same area tested by Ledbetter. The results of the second soil profile matched those of the first and indicated the presence of silty clay loam. Again, an 880-foot-trench was recommended. The builder was still not convinced and requested that an independent laboratory analyze the soil. The results from the Soil, Water and Forage Analytical Laboratory at Oklahoma State University confirmed the profile results found by the ECLS specialists. Finally convinced, the builder installed an appropriately sized on-site system.

ECLS Director Gary Collins stated, "In retrospect, two soil profiles and a laboratory analysis may seem like a lot of effort to convince one builder to use a better method for on-site system design. But the effort serves a greater purpose." ECLS staff members want to start a conversation about soil profiles, a technique which is often met with suspicion. However, on-site system designs based on soil profiles last longer, work better and cause less environmental pollution than those designed from percolation tests. If one person changes his mind about soil profiles, then others may follow suit. The resulting shift in the public's perception of soil profiling will mean fewer failing on-site systems and better protection of Oklahoma's environment.



ECLS Regional Manager Rick Austin, left, presents Carl Bode with a certificate of appreciation.

Below: Environmental Specialist Robin Stratton presents a certificate of appreciation to Mike Smith.



## Lending a Helping Hand

**W**arning letters or fines do their job most of the time and spur a citizen or company to clean up their environmental act.

Sometimes, however, ECLS staff members take a more creative approach to finding a solution with the goal of protecting the health of both the public and the environment. That was the case in FY 2010, when Environmental Specialist Robin Stratton investigated a complaint about pooled sewage from a failing sewage treatment system at a home in the Tulsa area.

Stratton originally sent a warning letter to the resident, a single mother with three small children. The resident was aware of the problem and was attempting to solve it by limiting the wastewater produced by the home. The resident had lost her job, did not have the money to make the repairs and was applying for a home improvement grant.

Stratton informed her that ECLS has a grant program that can assist homeowners who cannot afford to make repairs. She gave the resident a grant application and negotiated an agreement with her that halted additional enforcement.

Then another hurdle revealed itself. Due to the large number of applications that year, the ECLS grant

fund was depleted. Nonetheless, the law still required that the surfacing sewage violation be corrected.

Stratton and Regional Manager Rick Austin began searching for an alternate solution. They soon discovered Michael Smith with Smith Installation and Carl Bode with Osage Septic Service, two certified on-site sewage treatment system installers who were looking to assist someone as a gift for the holiday season. The repairs took place in early January, with Bode using his septage pumper truck to clean out the tanks so Smith could repair the components. Both installers worked in sub-zero temperatures and in the snow to fix the failing system – for no charge.

Is it rare for a government agency to enforce regulations in a way that protects an Oklahoma family as well as the environment? In some situations, when normal enforcement methods are ineffective, ECLS will work with the community to develop alternative means of compliance. This is because a strong, healthy community is made up of both a clean environment and community members who work together.



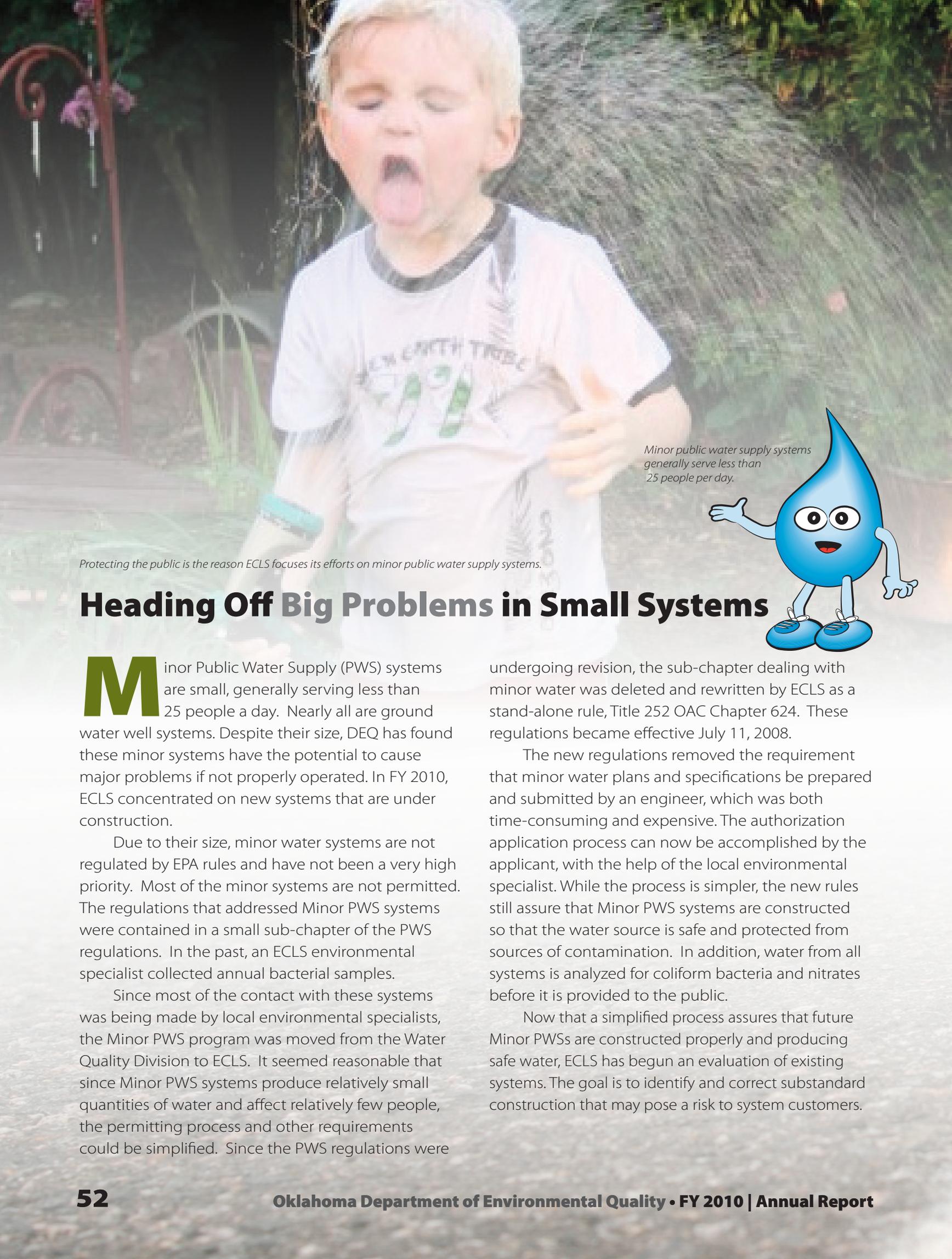
250 cubic yards of illegally disposed debris was removed from this site.

## Innovative Solution to an Old Problem

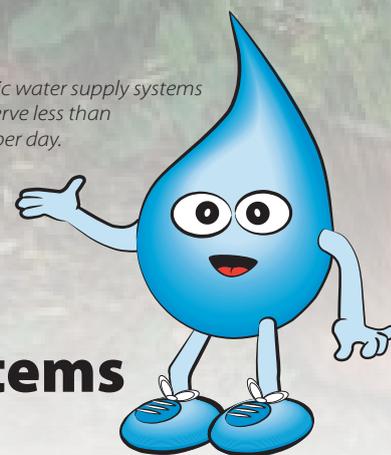
**E**CLS added a new element to its pollution-fighting arsenal of tools. This alternative, the Supplemental Environmental Project (SEP), allows violators to perform tasks, instead of paying part or all of their fines. In the last ten years, the SEP program has successfully solved difficult and persistent environmental problems.

For example, Environmental Specialist Loree Boyanton discovered that a land developer in southern Oklahoma County was disposing construction debris in an unlined pit near a group of new houses the developer was building. Boyanton issued a warning letter to the builder ordering her to stop the open dumping of the debris and to properly dispose of the material. However, the builder chose to burn the debris and bury the remains. In an attempt to mislead Boyanton, the builder said the material was taken to the landfill, but she was unable to provide documentation. Boyanton quickly discovered the truth. Since the builder had not complied with the warning letter and committed additional violations, Boyanton referred the case to the ECLS legal staff for enforcement.

The builder was issued an order requiring proper disposal of the material. A fine was assessed. At this point, Boyanton and her regional manager, Bruce Vande Lune, realized that an opportunity existed because of a complaint they worked several years ago. Boyanton and Vande Lune were aware of an old abandoned asphalt plant that still had not been cleaned up. The previous owner, who was no longer available, had abandoned the site after it was contaminated with used motor oil and other debris. It was a potential threat to adjoining properties and the ground water. Realizing that the home builder had the tools and resources to clean up the area, Boyanton and Vande Lune made her an offer. If the builder performed a SEP, which meant cleaning up the old asphalt plant, the work would count as credit toward the fine. The home builder agreed, and in short order, the construction debris dump and the abandoned asphalt plant were properly cleaned up. In general, SEPs have yielded great results in protecting and cleaning up the environment.



Minor public water supply systems generally serve less than 25 people per day.



Protecting the public is the reason ECLS focuses its efforts on minor public water supply systems.

## Heading Off Big Problems in Small Systems

**M**inor Public Water Supply (PWS) systems are small, generally serving less than 25 people a day. Nearly all are ground water well systems. Despite their size, DEQ has found these minor systems have the potential to cause major problems if not properly operated. In FY 2010, ECLS concentrated on new systems that are under construction.

Due to their size, minor water systems are not regulated by EPA rules and have not been a very high priority. Most of the minor systems are not permitted. The regulations that addressed Minor PWS systems were contained in a small sub-chapter of the PWS regulations. In the past, an ECLS environmental specialist collected annual bacterial samples.

Since most of the contact with these systems was being made by local environmental specialists, the Minor PWS program was moved from the Water Quality Division to ECLS. It seemed reasonable that since Minor PWS systems produce relatively small quantities of water and affect relatively few people, the permitting process and other requirements could be simplified. Since the PWS regulations were

undergoing revision, the sub-chapter dealing with minor water was deleted and rewritten by ECLS as a stand-alone rule, Title 252 OAC Chapter 624. These regulations became effective July 11, 2008.

The new regulations removed the requirement that minor water plans and specifications be prepared and submitted by an engineer, which was both time-consuming and expensive. The authorization application process can now be accomplished by the applicant, with the help of the local environmental specialist. While the process is simpler, the new rules still assure that Minor PWS systems are constructed so that the water source is safe and protected from sources of contamination. In addition, water from all systems is analyzed for coliform bacteria and nitrates before it is provided to the public.

Now that a simplified process assures that future Minor PWSs are constructed properly and producing safe water, ECLS has begun an evaluation of existing systems. The goal is to identify and correct substandard construction that may pose a risk to system customers.



*Above: Pam Bateman, Suji Kannamma and Don Ngo work on updating tablet computers with new InfoPath forms.*



*Left: Don Ngo provides training to local environmental specialists on the new InfoPath program.*

## InfoPath Provides Inspection Shortcuts

**E**CLS is reaping the benefits of innovation with InfoPath, a new electronic inspection process. InfoPath is both computer-based inspection forms and automated data entry that ECLS developed in partnership with DEQ's IT Development Group. InfoPath was created with existing knowledge, equipment and programs.

InfoPath forms simplify the inspection process by automatically populating fields with known data from the central databases. This eliminates the repetitious entry of already known information, such as facility names, addresses and contact information. It also standardizes the inspection process by linking inspection notes and observed violations to the structures, processes and equipment inspected. This clarifies the inspector's intent and ensures that every inspection is completed in exactly the same way.

The automation of this process reduces errors in data entry and eliminates hours of work. Once an InfoPath inspection is complete and the tablet PC is reconnected to the DEQ network, the data is uploaded to the databases in seconds. InfoPath also provides ECLS management with real-time reports on completed inspections that can be broken down into several categories. This is a significant improvement over previous reports, which lagged weeks or months behind the actual inspections and were prone to data entry errors.

InfoPath combines word processing and database management software in a way never before attempted at DEQ. It is so useful and effective that other DEQ divisions are planning to use this method to develop additional inspection forms.

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