

## Our Mission

To be the leading consultant solving the engineering or land surveying problems unique to rural-urban communities and their enterprise—government, business, and agribusiness. And in the process, to build trust and lasting relationships with the people among whom we work and live. ◀

## New law requires inspection of private sewage disposal systems before property sales

*Could affect many owners of septic and leach field systems*

Much of the wastewater produced in Iowa outside of Iowa cities is treated by individual septic tanks and disposed of by underground leach fields. The discharge of partially treated septic tank waste to the leach fields then drains into the groundwater—or if the drain fields do not work properly—to the surface water. In addition, septic tanks themselves may cause problems if not maintained or if located below the groundwater level. To help prevent these problems, the Iowa Legislature passed a new law in 2008. The new law may, however, cause financial problems for thousands of Iowa property owners planning to sell or transfer property.

That's because the law now requires that when a property with a private sewage disposal system is sold or transferred, it must be inspected; and it must be found to meet all

current operating standards. If a system is found lacking, the owner must correct the problem before a sale or transfer can be completed.

As Neal Kuehl explains, "This could place a severe financial burden on home owners who want to sell or transfer property. There are only a handful of exceptions to the requirements for inspection and compliance. And these exceptions relate to the mode of transfer—such as the retirement of a mortgage or a property transferred to an heir from a person's estate—not to the condition of the disposal system itself."

On the surface, the new law sounds pretty straightforward. "The difficulty comes with the caveat: the system must conform to *current* standards. Many of the affected properties, or the private systems which serve them, were constructed long before present standards relating to septic tanks, leach fields, or the distances between a system and adjoining properties were established."

Many owners in order to sell their properties will have to construct new systems; or bring existing ones into compliance often at considerable expense. "In some cases, where proximity to an adjacent property is a factor, a private system may no longer even be practicable."

There is a solution in areas that have sprung up adjacent to city or community sewer systems, or in the smaller Iowa towns which have not previously had community systems. Existing systems can be expanded to serve the affected properties, or in the case of the smaller towns: central waste collection and sanitary sewer systems can be constructed to serve the local citizens.

Buena Vista County is looking at two such situations currently and has hired Kuehl and Payer to assist them.

"The Buena Vista County Board of Supervisors has hired us to begin **Continued, SEWER, page 4**



Data collecting equipment at the Iowa Drainage Research and Demonstration Facility in Gilmore City. Photo courtesy of Dr. Matt Helmers, ISU.

## Don Etler recognized at field day for the Iowa Drainage Research Facility

THIS YEAR MARKS the twentieth anniversary of the establishment of the Iowa Drainage Research and Demonstration Facility located in Gilmore City.

On August 18, the Iowa Department of Agriculture and Land Stewardship and Iowa State University, who jointly administer and fund the facility, held a field day to commemorate the event

and to present a summary of the research conducted by the facility during its first 20 years.

As part of the program, members of the Project and Research Advisory Committee were given special recognition for their contributions to the success of the center. Don was a charter member of this group. This committee provided both the initial vision for the research center, and provided developmental guidance throughout the facility's initial years.

**Continued, DON, page 4**

## PROJECTS

### Drainage projects increase in response to wet spring and summer

DRAINAGE PROJECTS in all Kuehl and Payer offices are up partly due to the very wet spring and summer Iowa has experienced. "High commodity prices and land value increases are also having an impact," says Don Etlar.

"We have two new projects in the Algona office for improvements and repairs. The first with **Drainage District 65 of Pocahontas; and the other with Drainage District 48 in Palo Alto County**. Additionally, we are in the process of wrapping up **disaster recovery repairs in nine drainage districts in Pocahontas County and two in Palo Alto County**. These were funded with an 85% cost share from federal and state sources."

The heavy rains of this spring have opened up eligibility for additional funding for disaster repairs. "And we will be looking for other damages that may have occurred in these two counties following the harvesting of crops this fall." Another drainage project in the Algona office, involves a needed clean out of a ditch in **Joint Drainage District 1 of Palo Alto and Kossuth Counties** that is located under a CREP wetland.

"Three landowners had been notified that even repairs made to a drainage district system built 100 years ago could be in violation of CREP contracts if the wetland was drained. That would mean landowners would have to refund CREP payments plus pay liquidated damage settlements if the cleanout occurred." A meeting has been scheduled for September 5 to help resolve the problems generated by conflicting federal programs. "We're hoping for a positive outcome," says Don Etlar.

Ivan Droessler reports that bids for tree cleaning in **Drainage District 122, Calhoun County**, are in and work will begin in September. Bids for the open ditch clean out of over five miles of

ditch in **Drainage District 6, Calhoun County** are to be received September 9.

A hearing on the engineers report for the **Losey Drainage District, Monona County**, was held on August 26 and has been continued until September 16 to provide more time for landowners' review. A bid letting for slides repairs on **New Farmers Drainage District** has been set for September 25. FEMA repairs on the **Soldier Valley Drainage District, Monona County** begins this fall. This work involves the placement of over 12,000 tons of rip-rap which should be completed by April, 2009. An engineering study on Lateral 8 of the **McCandless Drainage District, Monona County**, evaluating a potential improvement and 1.5 mile extension to the open ditch will be submitted this winter. This is the last district in Monona County for which KPL has not previously worked.

In animal waste projects, Ivan reports that Steve White is working on the design for **several EQIP funded projects**: one turkey facility, one swine facility and one beef facility. Construction on three turkey manure barns, EQIP funded, and an EQIP funded cattle shed will begin this fall. Steve will be doing the site inspection for these construction projects.

KPL is also working on the development of **six new pullet operations for Center Fresh Egg Farm**. These will be located in Plymouth, Sioux, and Lyon Counties.

Planning for an **additional expansion at the Cherokee Landfill** is underway. Says Ivan, "The design is to be completed by December with construction planned for next summer.

"Also the fall **landfill inspections** will be complete by the end of September, with the fourth round of baseline sampling done in October. Tom Grafft is leading this effort." The placement of the final cover of the Cherokee Landfill is nearing completion. This project involves the placement of 100,000 cubic yards of dirt.

An evaluation of the **wastewater collection system in Swea City** to

### Busman's holiday

*THE ETTLER FAMILY vacation this summer included a 'curious' visit". Says Don with a chuckle, "my family enthusiastically joined me in visiting the Mike Weaver Drain Tile Museum located on the John Johnston Historic Farm."*

*The Mike Weaver Drain Tile Museum in Geneva, New York, may own the largest collection of drain tiles—more than 500 examples—in the world; and chronicles the history of agricultural drainage in America. Mike Weaver was an engineer for the USDA Soil Conservation service from 1936 until his retirement in 1966; he then worked as a drainage consultant for another 20 years. He accumulated his collection over his long career donating it to the Geneva Historical Society. The Johnston farm has been drained for farming since 1835.*

*If you'd like to visit the museum, it is open for tours Saturdays and Sundays, and by appointment. The phone number is 315.789.5151; the e-mail address: info@genevahistoricalsociety.com. ◀*



Don and museum curator.

determine if, or to what extent, infiltration and inflow problems occur during flooding has been completed. Says Curt Wiseman, project manager, "We are developing a plan of action, in the short-term, repairs can be made to reduce the risk. Longer range plans call for an expansion to the treatment lagoon and increased pumping capacity."

A **lagoon expansion** to three cells in **Early** is under construction. "Two of the existing cells are being rehabilitated. Earl Zimmerman is the resident observer on site. We've also completed a number of repairs to the sanitary sewer collection system, have lined 10 to 12 blocks of sewer, and put new concrete liner inside of 40 manholes in town. They should be good for 20 to 30 years now."

Construction is also in progress on the **Harold Rowley Recycle Center, part of the Buena Vista County Solid Waste System**. "It will be used to bale and collect construction debris which will then be hauled to Cherokee for pelletizing and reused as fuel."

Construction of a **lift station and force main for Leland** will begin in September.

**Storm sewer construction** is in progress in **Algona** and nearing completion. The Harriet Street project involves large storm sewers and intakes, and a reconstruction of the sanitary sewer to prevent flooding around an elementary school. The project also involves a block of paving. Also a 30 inch storm sewer is being constructed, by boring, underneath a railroad. Nick Frederiksen is the site observer for this construction.

Work for the **Algona Municipal Utilities** is also being done by KPL and includes water main improvements and site work for a warehouse. Construction on the latter is expected to begin late this fall or next year.

**Water and water treatment studies for two subdivisions outside Algona**, Oak Lake and Woodland Hills, are also in progress.

In **Emmetsburg**, construction on **Grand Avenue repairs** have been completed, reports Kent Rode. "Only things like the sidewalks, which will be done this fall remain. Construction of the sanitary sewer at the **Emmetsburg Business Park** is also complete and work on the storm sewer and detention basins

will begin in September. Bids have also been let for repairs to Ontario Street."

Kent has finished site plans for an expansion to the **Quad City Ethanol** site. "And the **Maple River Energy Biodiesel** construction is proceeding, but is slightly behind schedule."

Kent also reports that civil work on the 200,000 square foot expansion to the Hy-Vee Warehouse in Cherokee will be starting this fall.

Bob Payer has a number of projects under construction, "the underground work on **Eastridge in Holstein** is complete and paving will begin in September. In Storm Lake the storm sewer serving West Lakeshore Drive is complete with paving to begin in September.

"In the **Laurens** project, the **sanitary sewer, water main, and storm sewer** have been installed and the subpaving preparation is underway.

"And all underground improvements for the **City of Alta addition** is done

and rough grading on the detention pond started. This will also involve the paving of 150 feet of soft area."

The Storm Lake office continues to work with the **Buena Vista County Solid Waste Commission** in closing the landfill. No waste has been accepted since October of 2007. Placement of the final cover is in progress and should be complete this fall.

A proposal has been submitted to **Clay County for a new bridge over the Ocheyedan River**. "This will involve bridge approaches on both sides. Once complete, Clay County expects to pave these approaches along with existing roads that are part of the west side by-passes. We will be doing the additional survey work this fall. A November, 2009, bid letting is planned.

"We have also proposed an **engineering services agreement to the City of Storm Lake** for the planning and design of **storm sewer outfalls** in the northeast part of town. A preliminary study and evaluation was presented

in June and the City will be applying for funding from the State Revolving Loan Fund."

The **Buena Vista County Board of Supervisors** has hired Kuehl and Payer to assist with the preliminary work leading to an **engineering study** that will determine the best way to develop **sewer systems in Lake Creek and in the areas south of Storm Lake** and to insure that property values can be maintained without expensive upgrades. (See separate article, *New Law Requires Inspection of Private Sewage Disposal Systems Before Property Sales*, this issue.) Neal Kuehl is working with the county on this effort.

"We also have three projects underway for **Laurens**: a final decision on **water treatment improvements** is imminent; **well construction** began the last week of August; and an **emergency bypass lift pump for the wastewater treatment plant** is under consideration. "We are starting a **well design for Marathon** that will be

constructed yet this year; and finishing up a study for **Hawarden on wastewater treatment options**." Neal is also working with Alta to evaluate alternative treatments. In a two-day trip to eastern Iowa, Neal took Alta's plant operator on visits to seven plants over two days. This gave Alta officials a firsthand look at various options. Construction has started on the **water treatment plant for Winnebago Nebraska**. It should be complete by early 2009. John Devitt is project leader.

In survey news: in addition to the ongoing topographic and boundary surveys, Scott Shevel reports that the **I-29 staking** is 80% complete; **site planning for the Friesen subdivision** is final with the plat approved and construction staking to start shortly; and that survey work on the **Holstein subdivision** is complete with construction started. Jeff Krueger is working on site surveys for **Sioux Center Pullet**.

*If you would like more information about these or similar projects, talk to the people mentioned. ◀◀*

## News about KPLers

### Neal Kuehl is awarded ASCE life membership

NEAL KUEHL WILL be awarded a life membership in the American Society of Civil Engineers at the annual state meeting in Ames in September. Neal is a past president of the Iowa organization and has just completed a four year term as the ACEC National Director from Iowa.

### Sports

The annual Storm Lake-Algona Junior Varsity football playoff is set for September 8. This year four KPL-family athletes will be suiting up. **Alex Wiseman, John Etler, and Connor McGuire** from Algona; and **Isaac Droessler** from Storm Lake.

Congratulations to **Tangy Wiseman** who finished ahead of her dad, Curt, in the Iowa Falls 5-K run to the cheers of his twin nieces and other fans!



From the left: **Alex Wiseman, Connor McGuire, John Etler**.

### Flying high

Congratulations to **Kent Rode** for completing his flight check on his way to becoming a private pilot for single engine aircraft.



**Isaac Droessler, number 68.**

### KPL family

**Chris Payer**, son of **Bob Payer**, has been named the Director of Public Works for the City of Sioux City. Chris was previously the City Engineer for Sioux City.

He also worked for Kuehl and Payer briefly fifteen years ago after his graduation from Iowa State University and while waiting to report to active duty as part of his ROTC obligation.

### Happy birthday

To **Joanne Fraser** whose birthday is October 3; to **Tom Grafft** whose birthday is October 12; to **Clarence Krepps** whose birthday is October 19.

To **Kent Rode** whose birthday is November 5; to **La Donna Brummer** whose birthday is November 13; to **Zac Andersen** whose birthday is November 25; to **Diane Edwards** whose birthday is November 29.

To **Don Etler** whose birthday is December 4; to **Dave Anderson** whose birthday is December 15; to **Skip Leonard** whose birthday is December 17; to **Bryan Muhlbauer** whose birthday is December 21; and to **Barbara Pingel, Mark Wolf, and Tom Mason** whose birthdays are December 23. ◀◀

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Coppola-Sharp, Inc. «**

**SEWER, continued ...**

some preliminary work to determine the best way to develop sewer systems in Lake Creek [located on a golf course between Alta and Storm Lake] and in the areas south of the lake [Storm Lake]. The goal is to insure that property values can be maintained without expensive upgrades, but still meet the county and state requirements.”

A central sewer or collection system along Storm Lake will also work to insure the future water quality of the lake itself. “Storm Lake is one of the only natural lakes in Northwest Iowa that does not have a central sewer system along the lake. Okoboji, Lost Island, Twin Lakes, and Black Hawk Lake all have sewer collection systems which collect the wastewater and send

it to a central treatment site. “Most of those lake communities installed central sewer systems to protect their lake from the partially treated wastewater that was finding its way to the lake. Storm Lake does not seem to have this type of problem; but with all the efforts to clean up and maintain the lake quality, it only makes sense that some type of central sewer system be developed before that type of problem arises.”

Currently, KPL is soliciting input from residents in the these two communities about these problems. If you have questions about this new law and how it might affect you or your community, talk to Neal. He can be reached at 712.732.7745. «

**DON, continued ...**

The research center has contributed one of the largest continuous data sets in the nation on water quality related to tile drainage and the drained landscape. It has placed Iowa in a national leadership role for meeting the country's most important environmental and crop production issues related to tile drainage across Iowa and the entire corn belt.

Also attending the field day were former Secretary of Agriculture Dale Cochran, who chaired the advisory committee; the current Secretary of Agriculture Bill Northey, and Dr. Gerald Miller, Iowa State University Associate Dean. «