WASTEWATER OPERATION OPTIONS

A strong organizational structure is vital to properly operating and maintaining a new wastewater facility. Some wastewater operations are operated and maintained by the city, including employing a wastewater operator. Other communities may use utility management organizations (UMO). A UMO can provide communities with more options and ease unnecessary burdens, particularly for rural communities and unincorporated communities, including budget supervision, operations and service delivery.

A cooperative venture at the local level, UMO functions can be utilized with multi-county organizations, rural water agencies, resource conservation and development boards, council of governments, or multi-county environmental health organizations. Another option in establishing a UMO includes utilizing an existing municipal wastewater utility to assume responsibility for other communities in close geographic proximity. Overall, UMO benefits include savings through economies of scale, staffing and experience. As the entity matures, savings related to wastewater system planning, design, financing, operation and maintenance can be realized.

FOR ADDITIONAL INFORMATION, CONTACT THE UMO IN YOUR AREA*

Coverage includes		
Appanoose Davis Lucas Monroe		ADLM Counties Environmental Public Health 12307 Hwy 5 PO Box 399 Moravia, IA 52571 Bill Milani Donnie Herteen 641 724-3511 adlmenv@sirisonline.com
Cedar Clinton Delaware Dubuque Jackson Jones		Eastern Iowa Regional Utility Service Systems 2000 Pennsylvania Ave Suite 200 Dubuque, Iowa 52002 www.eiruss.org Mark Schneider 563-556-4166 mschneider@ecia.org
Adair Adams Cass Clarke Decatur Madison	Ringgold Taylor Union	Southern Iowa Rural Water Association 1391 190th Street Creston, Iowa 50801 Dan McIntosh 641-782-5744 dmc@sirwa.org
Black Hawk Bremer Buchanan Butler Chickasaw Floyd Grundy Hardin	Howard Jasper Marion Marshall Mitchell Polk Poweshiek Tama	Wastewater Management Services of Central Iowa 3801 Iowa Speedway Drive Newton, Iowa 50208 Kristie Wildung 641-792-7011 kwildung@ciawa.com

Coverage includes		
Buena Vista Calhoun Cherokee Clay Dickinson Emmet Humboldt Ida Kossuth Lyon	O'Brien Osceola Palo Alto Plymouth Pocahontas Sac Sioux Webster Woodbury	Regional Utility Solutions 1301 38th Avenue West Spencer, IA. 51301 Jim Johnston (515) 231-3529 jim.johnston@ilirw.rog
Davis Des Moines Henry Jefferson Keokuk Lee	Louisa Mahaska Van Buren Wapello Washington	Regional Utility Service System 901 N. 8th Street Fairfield, Iowa 52556 Kelly Lewiston 641-209-1011 klewiston@lisco.com
Adair Boone Calhoun Carroll Cerro Gordo Dallas Franklin Greene Guthrie Hamilton Hancock	Humboldt Kossuth Madison Pocahontas Polk Sac Story Webster Winnebago Worth Wright	Xenia Rural Water District 2398 141st Street P.O. Box 39 Bouton, Iowa 500309 Daniel Miller 515-676-2117 dan@xeniawater.org

* NOTE: Other UMOs may exist or are in development in your area. Please contact the DNR Field Office for additional information.

FUNDING AVAILABLE FOR WATER-WASTEWATER NEEDS

Water-wastewater infrastructure projects can be financially difficult for a community. To assist financing water-wastewater projects, communities can take advantage of available grant and loan programs from federal and state agencies. Funding assistance can be used to plan, design and construct new wastewater systems, upgrade wastewater treatment facilities adversely affected by new water quality standards, and/or replace inadequate infrastructure. Additionally, funding can be applied towards drinking water, sanitary sewer, solid waste and storm drainage projects or replacing outdated septic systems with approved onsite systems.

Community Development Block Grants
Iowa Department of Economic Development

Community Development Block Grants (CDBG) provide funding for public water and wastewater facilities for cities under 50,000, counties and non-profit organizations, specifically engineering fees, land acquisition and construction (does not include maintenance, service lines and connection fees). Funding is limited to $300,000 or $1,000 per capital, whichever is less. The CDBG funding must benefit disadvantaged communities by providing funding assistance where financial need is the greatest, replacing inadequate infrastructure or extending service and helping the project proceed to completion in a timely manner. A disadvantaged community is defined as fifty-one percent or more of the community's population is documented in having low to moderate income. A CDBG can be used in conjunction with other funding sources, such as Iowa SRF or USDA.

Program and Application Information: www.iowalifechanging.com/community/cdbg

Contact: Hank Manning 515-242-4836 hank.manning@iowalifechanging.com

Onsite Wastewater Systems Assistance Program
Iowa Department of Natural Resources

The Onsite Wastewater Systems Assistance Program funds the replacement of outdated septic systems with approved onsite systems. Approved systems include both a septic tank and a secondary treatment system such as a leachfield. Eligible applicants include homeowners in unincorporated areas of Iowa not served by a public sewer. The program cannot be used for new homes under construction. Also, the program is available in counties which have a DNR-approved environmental health program. Loan amount can be up to 100% of the project costs. The minimum loan amount is $2,000, with no maximum, and loan terms can be up to 10 years.

Program and Application Information: www.iowadnr.com/water/srf/onsite.html

Contact: Dan Olson 515-281-8263 daniel.olson@dnr.iowa.gov

Water and Environmental Programs
United States Department of Agriculture – Rural Development

The United States Department of Agriculture (USDA) Rural Development provides loans, grants and guarantees for drinking water, sanitary sewer, solid waste and storm drainage facilities in rural areas, cities and towns of 10,000 people or less. Public bodies, nonprofit organizations, special purpose districts and recognized Indian tribes may quality for assistance. All applications must be unable to obtain funds from other sources at reasonable rates and terms.

- The maximum term for loans is 40 years, the useful life of the facility or state statute, whichever is less. Interest rates are established quarterly and may be obtained from any USDA Rural Development office.
- Grant assistance is determined only after considering the maximum amount of loan an applicant can obtain. In no case will the grant assistance exceed 75% of the eligible project costs. Grants are typically made in conjunction with a direct loan.
- Guaranteed loans are made and serviced by conventional lenders. The maximum amount of loan guarantee is 90%.
- USDA Rural Development also makes grants to nonprofit organizations to provide technical assistance and training to assist rural communities with their water, wastewater and solid waste problems.

Program and Application Information: www.rurdev.usda.gov/ia/rus.html

Contact: Karla Peiffer 515-284-4459 karla.peiffer@ia.usda.gov

State Revolving Fund for Wastewater and Drinking Water
Iowa Department of Natural Resources and Iowa Finance Authority

The Iowa State Revolving Fund (SRF) finances drinking water and wastewater infrastructure, as well as projects addressing stormwater quality and non-point source pollution. Borrowers save money on their financing costs because the SRF provides below-market interest rates.

The Iowa SRF is operated through a unique partnership between the Department of Natural Resources (DNR) and the Iowa Finance Authority (IFA). The DNR administers the environmental and permitting aspects of the programs, while the IFA provides financial assistance including loan approval and disbursements. There are two separate funds: the Clean Water SRF, which finances water quality projects; and the Drinking Water SRF, which finances drinking water system upgrades to provide safe drinking water.

The SRF currently has the capacity to fund all eligible projects. Three types of available loans help cities, public water supplies, counties, sanitary districts, or utility management organizations upgrade their water and wastewater systems.

- Planning and Design (P&D) loans are provided at 0% interest for up to three years to cover the costs of preparing facility plans and project specifications. The loans will be rolled into SRF construction loans or repaid by another source of permanent financing. Many facilities are using P&D loans to prepare for applying for grants and other financing as well as for SRF loans. There is no minimum or maximum amount for P&D loans.
- Construction loans are offered at 3% interest. Loans durations are generally for 20 years; however extended financing, of up to 30 years based on the useful life of the facility, is available for all wastewater projects and for disadvantaged communities taking drinking water loans. The minimum loan amount is $50,000, with no maximum amount.
- Source water protection loans are offered at 0% interest. These loans can help public water supplies acquire land and conservation easements or work with facilities in their wellhead or source water protection areas. The SRF loans can be used in conjunction with other programs and many SRF projects are co-funded with Community Development Block Grants, Iowa Finance Authority wastewater assistance grants or federal grants.

Program and Application Information: www.iowasrf.com

Contact: Patti Cale-Finnegan, IDNR 515-725-0498 patti.cale-finnegan@dnr.iowa.gov
Lori Beary, IFA 515-725-4965 lori.beary@iowa.gov

Wastewater Treatment Financial Assistance Program
Iowa Finance Authority

The Iowa Finance Authority administers a program that provides grants to communities who have been adversely affected by recent changes in the water quality standards. The grants may be used to construct or upgrade wastewater treatment facilities. Communities who apply must be less than 3,000 in population and meet the current disadvantaged community criteria. A disadvantaged community is defined as fifty-one percent of the community's population is documented in having low to moderate income.

Program and Application Information: www.iowafinanceauthority.gov

Contact: Lori Beary 515-725-4965 lori.beary@iowa.gov
Tracy Scebold 515-725-4922 tracy.scebold@iowa.gov

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COMMUNITIES THROUGHOUT IOWA ARE MAKING THE CONNECTION TO SERVE ITS WATER AND WASTEWATER NEEDS.

When a community decides to initiate a wastewater construction project, many parties become involved in the process, including, but not limited to, state and federal agencies, consulting and/or contracting firms and engineers, councils of government, economic development organizations, and/or members of the public. Leading by example, the following communities worked together with interested parties to make the water-wastewater connection.

Bagley – Septic System Upgrades

Because the community septic tank and individual on-site septic tanks were failing, the residents of the City of Bagley were discharging inadequately treated sewage into Mosquito Creek. With a population of 354 people, the City of Bagley needed to upgrade all septic tanks within the community. With financial assistance from Region XII Council of Governments and the United States Department of Agriculture this goal was accomplished in 2007. The upgraded septic systems are now managed by the Guthrie County Environmental Health Department through a 28E Agreement. This community improvement has eliminated the discharge of inadequately treated wastewater into the Mosquito Creek tributary, which leads to the South Raccoon River.

Cerro Gordo County – Wastewater Treatment Facility

Cerro Gordo County officials initiated action for two small towns within its county, the City of Meservey and the City of Swaledale. County officials applied for financial assistance and built its own wastewater treatment systems to serve its residents. Both wastewater treatment systems are operated and maintained by Cerro Gordo County.

College Springs – Residential Septic System Upgrades

Because of failing septic systems within the City of College Springs, inadequately treated wastewater was directly discharged into the Middle Creek tributary, which leads to the Nodaway River. Completed in 2006, all septic systems within the small town of 246 people were upgraded. In addition to the residential septic system upgrades, the South Page High School in the City of College Springs was sewered through a separate project. Currently, all residential septic systems are managed by Page County Environmental Health Department through a 28E Agreement.

Conroy – Two-Cell Lagoon with Residential Hook-Up

Conroy, an unincorporated town in Iowa County, did not have a wastewater treatment system. Conroy officials applied for and received a financial assistance from the Watershed Improvement Review Board (WIRB) and United States Department of Agriculture Rural Development (USDA). Through collaborative efforts between county, state, federal officials, Poweshiek Rural Water, an engineering firm and the Conroy residents, the town will have its own two-cell lagoon, including residential hook-up, within the next year.

Hamlin – On-Site Septic Systems

An unincorporated community of less than 75 people, the City of Hamlin had approximately 22 on-site septic systems that needed upgrading. After several meetings, the city and county officials agreed on a plan of attack. The Board of Health and Board of Supervisors approved a management district ordinance and any resident who needed financial assistance received it through the Region XII Council of Governments. The one church, two businesses and residential homes now have on-site systems in good working order that do not discharge improperly treated wastewater into the Blue Grass Creek tributary, which leads to the East Nishnabotna River.

Shannon City – Individual and On-Site Cluster Systems

With a population of 76 people, the City of Shannon City was discharging untreated wastewater directly into the Grand River Basin. With the help of the Department of Natural Resources Field Office 4 and the Southern Iowa Rural Water Association (SIRWA), individual and cluster on-site systems have been implemented in the community.

Viking Village – Sand Filter with Pump Distribution

In Montgomery County lies Viking Village, population of 30 people. With several homes near Viking Lake State Park, the area lacked a sufficient wastewater treatment system until 2006. The project included a two-stage sand filter with a pump distribution to each stage. The treatment system is currently managed by Page 1 Rural Water. With this system in place, Viking Village no longer discharges untreated wastewater to Viking Lake State Park.

ADDITIONAL RESOURCES AVAILABLE

For additional information, please contact the Iowa Department of Economic Development and/or the Iowa Department of Natural Resources.

Iowa Department of Economic Development — Water Quality Advocate

The Water Quality Advocacy Program serves as a point of contact between businesses, communities, regulatory agencies and/or expert resources to ensure effective water quality improvements, permitting and compliance with applicable Iowa law and regulations.

Contact: Jessica Montana 515-242-4871 jessica.montana@iowalifechanging.com

Iowa Department Of Natural Resources — Field Office Locations And Contacts

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Field Office 2
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Fax: (641) 424-9342

Field Office 3
1900 North Grand Ave,
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Spencer, IA 51301
Phone: (712) 262-4177
Fax: (712) 262-2901

Field Office 4
1401 Sunnyside Lane
Atlantic, IA 50022
Phone: (712) 243-1934
Fax: (712) 243-6251

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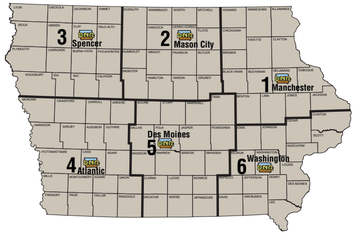
401 SW 7th, Suite 1
Des Moines, IA 50309
Phone: (515) 725-0268
Fax: (515) 725-0218

Field Office 6
1023 W. Madison Street
Washington, Iowa
52353
Phone: (319) 653-2135
Fax: (319) 653-2856



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DNR

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For more information on these and other programs, contact the Iowa Department of Economic Development (IDED)
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THE PROBLEM TODAY

Before the establishment of wastewater standards, rural Iowa communities were allowed to dump, flush and pour untreated wastewater down the drain. Through drainage tiles or directly, untreated wastewater would be discharged into Iowa rivers, ditches, streams or lakes. The problem today — wastewater standards are now in place, but untreated wastewater is still being discharged into Iowa waters.

Untreated wastewater or improperly treated wastewater contains high levels of pollutants, including, but not limited to, bacteria, nitrates and phosphorus, cleaning products, pharmaceuticals and pathogens. These pollutants can enter groundwater and contaminate drinking water supplies. Further, untreated wastewater can contaminate surface waters, making recreation unsafe for humans and serving as a breeding ground for flies and mosquitoes, which can spread disease.

Making the connection to an already-existing wastewater treatment facility or building a new one results in improved water quality. With a properly functioning wastewater treatment system, untreated wastewater is no longer directly discharged into Iowa's lakes, streams and rivers.

TRADITIONAL AND ALTERNATIVE WASTEWATER TREATMENT OPTIONS

When considering wastewater treatment systems there are a number of costs to consider: planning and site evaluation; design, permitting and bidding; construction; management, operations and maintenance (over the life of the system); repair; emergency services; insurance; and long-term replacement.

The costs of construction, management, operations and maintenance may decrease by using innovative collection and treatment technologies. The technology selected should be site-specific and work best for that particular community. For example, a traditional centralized wastewater treatment system, which collects wastewater from all homes within a specific area and is piped to one treatment system, accounts for nearly two-thirds of the total construction costs. However, where housing is less dense and/or topography and other site conditions makes installing a traditional wastewater system costly, using an alternative wastewater technology may be the most cost-effective approach. Additionally, many of the alternative technologies— intermittent and re-circulating sand/media filters, re-circulating gravel/rock filters, sand mound systems, constructed wetland systems and small mechanical/aerobic package plants—require a smaller, less obtrusive footprint and are usually easier to locate.

Other collection technologies, such as use of properly installed and maintained septic tanks with effluent pressure or gravity collection system, can reduce construction costs by eliminating the need for lift stations and allow the use of smaller diameter sewers. Smaller diameter sewers accommodate more cost-effective installation techniques - such as directional boring, which lessen amount of easement required and surface restoration expenses, such as repairing roads.

Ultimately, a community must weigh the advantages and disadvantages as to which technology serves its community in the best manner.