Opportunities for Sustaining Water and Wastewater Services in Rural Iowa

Best Practices to Achieve Success

Iowa Rural Water Association

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A Report Prepared for the

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Opportunities for Sustaining Water and Wastewater Services in Rural Iowa: Best Practices to Achieve Success

Introduction

Critical to economic development and sustainability is the continuation of water and wastewater services in Iowa’s small communities. Providing low cost, high quality service is a challenge due to the aging infrastructure, population and remote location of Iowa’s small towns.

According to the U.S. Department of Agriculture – Rural Development, there are 235 incorporated communities in Iowa that lack either a public water supply or public sewer utility. These communities represent over 30,000 Iowans.

Iowa’s aging water and wastewater infrastructure also poses problems. Communities faced with the expensive upgrades and replacement needed to sustain their public water and sewer utilities struggle to obtain financing and to minimize the costs to their residents.

In addition, many public water works professionals employed by rural communities are nearing retirement age and may likely become increasingly difficult to replace in the face of increasing certification requirements.

New collaborative arrangements between small communities and other regional partners are a potential answer to some of the challenges faced. The twenty regional water systems organized in Iowa represent one alternative as does larger communities that may be located in the area. Options exist for communities to partner with rural water systems and larger communities to provide or continue water and wastewater services for local citizens. Such partnerships can take various forms including (1) ownership of the distribution and wastewater systems, (2) selling bulk treated water and (3) providing contract management services.

Rural Water Systems – Historical Overview

Prior to 1937, rural communities and residents relied primarily on private wells for their drinking water. Problems with quantity and quality of wells as a drinking water source led Congress to create a financing program to aid rural communities and residents. The Water Facilities Act was signed into law in 1937 and was designed to primarily help with financing for seventeen western states. The original government agency delivering this financial and technical assistance was the Resettlement Administration and the Soil Conservation Service and later, the Farm Security Administration. In 1946, the program was transferred to the jurisdiction of the Farmers Home Administration and expanded to promote financial and technical assistance in all states. The U.S. Department of Agriculture reorganization of 1995 merged the water utility activities with those of electric and telecommunication within the Rural Utility Service. At the state level, the loan and grant program originally conceived in 1937 is delivered by the Rural Development Agency. Since the program’s inception, over $9 billion has been disbursed to create and maintain 20,000 water systems across the United States.
The water program originally created in 1937 also provides financing for wastewater systems. It led to the creation of rural water systems, designed to connect rural residential users with a drinking water supply. The first rural water association in Iowa was Rathbun Regional Water Association, Rathbun Regional Water Association was formed in 1974 and now serves over 30 counties in Iowa. There are twenty rural water systems in Iowa. In 2004, there were 83,472 taps (defined as a billable address) in Iowa’s rural water network. The number of taps in the twenty rural water systems has grown at a rate of five percent for the past three years. It now serves Iowans in 60 counties.

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<th>Rural Water Associations in Iowa</th>
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<tr>
<td>Number of Rural Water Associations in Iowa</td>
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<td>Number of Rural Water taps</td>
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<tr>
<td>Number of Iowa counties with Rural Water service</td>
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<td>Number of towns served by Rural Water</td>
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<td>Total population of towns served</td>
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<td>State parks, rest areas &amp; other entities served</td>
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<td>Miles of rural water pipe</td>
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<td>Communities with rural water sewer service</td>
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**Organizational Structure of Public Water Suppliers**

There are five major types of public ownership of water suppliers. These different types of ownership systems reflect the rural water structure in Iowa.

- **Municipal systems** – these are water and/or wastewater systems that are owned and operated as an integral part of town or city governments.
- **County systems** – these are water and/or wastewater systems that are owned and operated as an integral part of county governments.
- **Water districts and authorities** – these are separate organizational entities formed by local, county or state governments for the sole purpose of owning and operating a water and/or wastewater system.
- **Nonprofit homeowners associations** – these are cooperatives that are often established by residential developers to own and operate water and/or wastewater systems serving suburban housing developments.
- **Nonprofit rural cooperatives or associations** – these are cooperatives or associations formed to own and operate water and/or wastewater systems in rural communities.
- **RUSS** – these are multi-county organizations formed through the auspices of the Natural Resource Conservation Service (NRCS) agency’s Resource Conservation and Development (RC&D) program to provide a regional approach to water and/or wastewater system delivery.
Rural water districts may be organized under either 357A or 504 of the Iowa code. Eight systems are incorporated as 357A entities providing them with governmental status. These systems are subject to the same exemptions and requirements for other public bodies. For instance, they are subject to the open records law and public bid requirements. 357A water districts are exempt from all sales, use and property taxes. They do not have authority to levy taxes. The twelve remaining systems are incorporated under Iowa’s non-profit statute. Non-profit rural water associations enjoy many of the same benefits of 357A water districts including the right to enter into franchise or 28E agreements. Rural water associations organized as non-profit associations have a limited sales tax exemption on the purchase of supplies and equipment related to new construction. In addition, they do not pay property taxes as non-profit associations. They are not subject to open records or public bid requirements.

Rural water associations are comprised of members (i.e. customers) and are governed by elected boards of directors. Both types of associations – public bodies and nonprofits – are given the same statutory authority provided to other types of water providers. Rural water associations can enter into franchise agreements and 28E intergovernmental agreements as can municipalities. Rural water associations’ service territories and rates are not regulated by the Iowa Utilities Board as is the case with rural electric cooperatives. County boards of supervisors determine service territories for rural water districts organized under Iowa Code Section 357A. Territories for rural water associations organized under Iowa Code Section 504A are not defined but are usually set by agreements between rural water associations. By law, rural water associations are generally prohibited from serving customers within the two-mile territorial limit of a city. However, cities must serve customers within four years of submission of a plan by a rural water association or district or that territory may be served by that rural water association.

 Territory of rural water systems may be annexed by cities. However, the city must fairly compensate the rural water system for infrastructure asset and revenue losses resulting from the annexation. Rural water systems that have outstanding debt to the federal government also receive territorial protection. Section 1926(b) protects service territory on which there is a federal loan from annexation. Under this protection, cities cannot annex any territory of a rural water district on which there is an outstanding federal loan.

**Financing Public Water and Wastewater Systems**

The U.S. Department of Agriculture provides loans and grants to rural communities and the rural water associations to develop water and wastewater systems. The state provides financing for rural water and wastewater projects through community development block grants (CDBG), the Drinking Water State Revolving Loan Fund and the Clean Water State Revolving Loan Fund. 357A rural water districts have the ability to bond to finance projects. Both types of rural water associations have the ability to borrow from private lenders.

Rural water associations are subject to the same regulatory requirements as city and municipal water and wastewater providers. The requirements of both the Safe Drinking Water Act (SWDA) and the Clean Water Act (CWA) apply. Rural water associations are required to utilize certified operators and have all applicable operating permits.
Types of Services Provided by Rural Water Districts

Rural water associations were originally formed to provide drinking water services. Rural water systems may have treatment and distribution operations or simply distribute water to customers that is purchased in bulk from another public water supplier. The majority of rural water systems with their own treatment plants rely on groundwater. Nearly 93 percent of Iowa’s drinking water comes from groundwater sources. Rathbun Regional Water Association is the only rural water system that relies solely on surface water. This impacts the regulatory structure of public water suppliers. Surface water regulatory requirements are greater than those drinking water systems that use groundwater.

Rural water systems provide water directly to rural residents. They may sell bulk water to communities or other public water suppliers. In this case, the community or system purchasing bulk water from a rural water system is considered a separate public water supply for purposes of DNR regulations. Communities purchasing bulk water from a rural water system will meter each customer and thus act as a public water supplier.

Rural water systems can enter into franchise or 28E agreements with a community to provide water service as can larger communities. Under this scenario, the smaller community is considered part of the overall rural water system and is not required to undergo separate permitting and oversight by the DNR. These agreements allow for the rural water system to bill customers directly rather than through the community.

Rural water systems may also provide emergency interconnect services to communities or systems that maintain their own water system. A key issue for any public water supplier is the avoidance of disruptions to water service to its customers. Rural water systems are providing some communities with back up water supplies in the event of such a disruption. This can be a valuable economic development tool for rural areas.

Rural water associations and districts have expanded their scope of service to include wastewater or sanitary sewer (Table A). The U.S. Environmental Protection Agency identifies rural water associations as responsible management entities (RME), highlighting their ability to provide management oversight for wastewater services in rural areas. As communities struggle with providing adequate wastewater services that meet the requirements of the Clean Water Act (CWA), rural water associations have stepped in to fill that void. For small communities who wish to maintain their public water supply or wastewater system but need assistance with day to day operations or management, rural water associations and districts have stepped up to the plate (Table B).

Factors To Consider for Future Services

There is no one solution to providing a safe, reliable drinking water supply. All of the public organizational structures discussed above have potential strengths and weaknesses. An analysis of institutional capacity should be completed when determining the future course of action. Institutional capacity is defined by the U.S. Environmental Protection Agency as consisting of
three elements: financial, technical and managerial capacity. Often, the elements of technical and managerial capacity can be examined under the larger umbrella of operating considerations.

**Financing Considerations**

Two key factors to assess the financial capacity of a water system is the ability to obtain capital and the ability to have sufficient cash flow from water rates to cover the routine costs of operation, maintenance and debt service.

Large water systems, defined as those that serve more than 50,000 persons are a small segment of the public water suppliers in Iowa. The majority of Iowa systems serves between 3,000 – 10,000 customers and is defined as small systems. As such, these small systems require more capital per gallon of water sold than the larger systems. The very smallest public water systems, those serving less than 500 people, require 8 to 10 times as much capital per gallon of water sold as the larger systems. Financing continued operations as well as infrastructure replacement are key considerations for small systems when looking toward the future.

**Operating Considerations**

The organizational structure of a water or wastewater system impacts the technical and managerial capacity of that system. Small systems face an increasingly challenging operating environment. These systems tend to have fewer staff to manage the system. In addition, their staff is cross-functional, i.e. wear many hats in the day to day management of city functions. The increasing difficulty of understanding and complying with the technical demands and regulatory standards of the Safe Drinking Water Act can test the ability of a small community system to maintain compliance. Most small system operators are solely responsible for the system’s operation and therefore, find it difficult to receive the necessary training to stay abreast of the latest regulatory requirements from the SWDA. In addition, many of the professionals working for smaller systems are nearing the retirement age, which when added together across many communities in rural America poses a critical staffing capacity issue.

**Public Water Supply Systems in Iowa**

A key consideration when looking toward future options for providing water and wastewater services is the density of population. The smaller the population density, the more expensive it is to build and operate a water distribution network. According to the 2000 U.S. Census, 45.3 percent of Iowans live in metropolitan areas. Metropolitan areas in Iowa comprise less than 12 percent of the total land mass. The average population density for rural areas is 32 people per square mile.

Nationally, water systems that serve fewer than 100 people have an average of 33 customers per mile while systems serving more than 10,000 people have an average of 71 customers per mile of pipe (Table C). Assessing options for future water service must take into account the proximity of a larger water supplier, either a municipal or city system or a rural water system. About half of Iowa’s twenty regional water systems serve populations greater than 10,000.

Further EPA data on a national level indicates that of those water systems serving fewer than 3,300 people (defined as a small water system), most have lower incomes and lower property
values than larger systems. The result is fewer financial resources within those small systems to sustain and upgrade their water systems.

**Unsewered Communities in Iowa**

Iowa has one of the largest numbers of communities without sewer service in the United States (Table D). This problem poses threats to the quality of Iowa’s waters, public health and can be a limiting factor in economic development. There are approximately 21,500 homes in Iowa without centralized sewer collection. These homes rely primarily on aging septic systems to handle waste. These homes are located in both incorporated and unincorporated communities. The majority, approximately 18,000 homes, are in unincorporated towns. There are 139 incorporated communities without adequate sewer treatment.

Combined, these homes produce as much as 1.17 billion gallons of sewage on an annual basis. The cost of providing appropriate wastewater infrastructure to address this problem ranges from $214 to $322 million, depending on the type of system that is instituted. Two key barriers must be overcome to address this problem. The first barrier is financing. Programs do exist to fund wastewater improvements including the Clean Water state revolving loan fund, community development betterment grants, Rural Development loans and grants and the Iowa onsite wastewater assistance program. However, these programs are typically under-funded. In addition, the typical median household income for unsewered communities is low and the communities are small, increasing the costs of implementing an adequate wastewater system project.

The second barrier is management capacity. The 18,000 plus unincorporated communities lack the management structure and capacity to adequately manage and maintain a centralized collection system. A responsible management entity will be necessary to put in a wastewater system that meets the needs of public health and the environment. Compounding this issue is that the majority of the unsewered communities also lack a public water supply. These homes rely on private wells to fulfill their daily water needs.

**A Case Study of Three Systems**

*Clay Regional Water Association*

Clay Rural Water Association was formed in March of 1976. The original name reflected the association’s original purpose of providing water to rural customers. The system began with just under 500 miles of pipeline and 920 subscribers in Clay County, Iowa. The association is headquartered in Spencer, Iowa. Since its inception, the association has grown to over 3,000 customers and 900 miles of pipeline in five Iowa counties and one county in Minnesota. The name has also changed Clay Regional Water Association to reflect the regional delivery service provided by the association.

Clay Regional Water Association is organized as a 357A entity. As such, it has the authority to bond but not the authority to tax. It also has power of condemnation as afforded other public utilities. Clay Regional Water Association provides water directly to rural customers, through bulk water sales to towns and directly to customers in many small towns in northwest Iowa. In
addition, Clay Regional Water has many wastewater initiatives to help address the lack of adequate sewer service in Iowa’s small towns.

Rathbun Regional Water Association
The genesis of the Rathbun Regional Water Association started in 1968 when a group of farmers in Appanoose County sought solutions for water shortages and contamination problems in their private wells. Four counties eventually joined together to create the Rathbun Regional Water Association with its primary water supply being drawn from Rathbun Lake, an Army Corps of Engineer lake in Centerville, Iowa. In addition to providing water supply to private well systems, the four counties shared a common goal of wanting to reduce their reliance on municipal systems scattered across their territory. Rathbun Regional Water Association was organized as a non-profit association, with many of the same benefits of a 357A water association.

Construction on the treatment plant began in 1975 and was completed in 1977 with the first water flowing through the distribution network in that year. At that time, the projected needs for the system was 4 million gallons per day. In the past 18 years, the capacity of the system has grown to 8.8 million gallons per day and includes a network of services stretching across southern Iowa and into Missouri.

Today, Rathbun Regional Water Association provides water to nearly 16,000 rural families, farms and communities through 6,500 miles of pipeline, 30 elevated storage tanks and 33 pump stations. The rural water system has been the catalyst for economic development in the region.

Poweshiek Water Association
Poweshiek Water Association was incorporated in 1978. Construction on the original system began in 1984 and was declared finished on July 26, 1985. Ground breaking at the treatment plant was Oct. 6, 1984, and the plant started pumping water September 10, 1985. The original system served approximately 1,300 taps. Communities that were supplied water by PWA were Barnes City, Guernsey and Gibson. The counties served by PWA were Poweshiek, the lower third of Tama and parts of Iowa, Keokuk, Mahaska and Jasper.

Today, Poweshiek Water Association serves over 5,200 individual taps. Communities served include Guernsey, Gibson, Vining, Luzerne, Thornburg, Searsboro, Buckingham, Dinsdale, Irving, Watkins, Barnes City, Malcom, Clutier, Hickory Hollow, Millersburg, Dysart, Brooklyn, Holiday Lake, Chelsea, Elberon, Norway and Van Horne.

There are currently 11 water towers throughout the system in addition to the treatment plant. Poweshiek Water Association maintains approximately 2,500+ miles of distribution lines. The treatment plant can pump up to 2,800,000 gallons of water per day to the system. The utility has an agreement with the city of Cedar Rapids to purchase up to 1,600,000 gallons of water per day in addition to its own treated water.
Best Practices

In 1974, Congress recognized water as a precious commodity and took steps to upgrade public water with the passage of the Safe Drinking Water Act. Meeting the stringent drinking water and clean water standards of the Environmental Protection Agency and the Iowa Department of Natural Resources are a challenge for many small communities. The monitoring and enforcement of these water quality standards frequently can be far-reaching and require large capital investments and ongoing operating costs. Local staffing and elected officials’ abilities in meeting these requirements are tested. Ignoring the problem is not an option.

Governmental rules and regulations have made it economically unfeasible for some communities to continue to provide service to their residents. For many communities, the difficulties of maintaining and operating a safe and dependable water and wastewater system for its citizens are becoming overwhelming and unworkable.

Understanding the capabilities of the community current system.

A community must have a plan for providing high quality, affordable water service to their residents. For many communities, the cost of building, maintaining and upgrading water systems is becoming too expensive. Communities must invest in new wells, new equipment, repairs, continuous monitoring and testing to meet the ever-increasing quality standards. Many small systems are unable to achieve the economies of scale necessary to achieve operational, maintenance, and compliance costs.

These investments can squeeze already tight community budgets and become even more burdensome on ratepayers. Small communities primarily serve residential customers with limited commercial users. Therefore, these small communities often have a limited tax base to pay the higher per unit cost.

Yet, access to a strong water and wastewater disposal infrastructure is a critical factor in the survival of America’s small communities. Research from the U.S. Department of Commerce’s Economic Development Administration study shows one way to ensure rural communities develop and grow is to assist them in maintaining, at all times, a safe and reliable water supply. A reliable water supply can pay economic benefits though job creation, private investment, and a stable tax base. Cities must be open to explore all options and to be creative in seeking solutions to this challenge.

Regional water systems are an option that many communities may find attractive when considering maintenance and operating costs. Such arrangements can help small communities meet the drinking water and wastewater treatment standards deemed necessary by the federal and state government.

Developing a relationship with communities in your growth area

Overcoming a community’s reluctance to purchase service from a rural water provider or other external entities is critical. Fortunately, rural water providers offer several options that can help
communities and their residents have the exceptional service and water quality necessary for public health, economic development, and convenience at a reasonable cost.

Before working with a community to provide services, it is critical that communication and trust be established. Trust does not happen overnight and frequently takes years of interaction and communication. It is a difficult decision for community leaders to “give up” providing any service. However, by providing community leaders – elected and appointed - with information and ideas about local water issues can create future opportunities.

The “marketing” of regional water systems should be designed to educate and establish confidence in customers and potential customers with services provided by rural water and other external entities. Developing a relationship with city councils and leaders of the smaller community in advance of any expansion plans is necessary to avoid potential conflicts and achieve the common goal of providing quality service.

It is important that regional water systems minimize the challenges presented by any expansion plans by investing in open communications with the community. Through news releases, public speaking engagements, member newsletters, and community action, regional water systems can educate and establish positive relations with local leaders. Such activities might be designed to promote understanding of the opportunities provided by regional water products and services and promote goodwill.

Many rural water systems are good regional citizens and are recognizable leaders in their respective areas. The board members of these rural water systems and their staff can show vision and leadership by participating in community events and lending expertise in assisting local activities. By forging links with non-member communities, regional water officials are in a position to encourage and facilitate expansion when a community is faced with difficulties in meeting drinking and wastewater treatment standards.

Working with a small community to provide the latest information, education and technical assistance as the community discusses options for future water and wastewater services is critical. Remembering the common goal of providing high quality, affordable water service will help to focus leaders on a common objective while outlining the options available for growth.

*Working together –Iowa Incentives*

Rural water offers operational and administrative contract services. Licensed water and wastewater operators offer maintenance, construction, inspection and compliance services to their members. Rural water also provides customer billing, customer service, and monthly reports to the city council.

Some rural water operators have been able to provide additional incentives to encourage communities to purchase service. Depending on the services sought, one rural water system agreed not to change the current water rates until such time as an overall increase is established to the remaining service area.
One rural water operator has agreed to assume complete responsibility for principal and interest due on water revenue bonds and outstanding notes. The rural water operator assumed complete responsibility for all payments due. These covenants can be useful in overcoming reluctance to give up local control of water and wastewater in a community.

**Legal Arrangements for Community-Regional Water Partnerships**

In general, there are four different legal arrangements for creating partnerships between small communities and external water service entities in the region.

*28-E Intergovernmental Arrangements*

By the adoption of Chapter 28E, the Iowa legislature has granted to state and local governments broad authority to enter into agreements with other governmental units and agencies, as well as private entities. Section 28E.1 provides: “The purpose of this chapter is to permit state and local governments in Iowa to make efficient use of their powers by enabling them to provide joint services and facilities with other agencies and to cooperate in other ways of mutual advantage. This chapter shall be liberally construed to that end.”

28E agreements have most typically been used in regard to solid waste collection and disposal, law enforcement activities, fire protection and other emergency services, but the potential for such agreements is essentially limited only by the needs, desires, and imagination of the participants.

There are two primary types of 28E agreements – those in which a separate legal or administrative entity is created and those which provide for cooperation without creating a separate agency or entity.

*Franchise Agreements*

Code of Iowa 364.2 (4a.) states “a city may grant to any person a franchise to erect, maintain, and operate plants and systems for electric light and power, heating, telegraph, cable television, district telegraph and alarm, motor bus, trolley bus, street railway or other public transit, waterworks or gasworks within the city.” A franchise allows an entity to use city streets, alleys and other public lands in order to provide, distribute and sell services to the community. A franchise agreement is an agreement, prescribed by ordinance, which sets the terms of the franchise. This includes terms such as, the length of the franchise and any requirements that the entity repair damage done to city streets while constructing or maintaining their system.

*Contracts for Services*

Communities can enter into contracts for specific services with regional water systems including bulk water purchases, interconnect services, repair services, meter reading services to name a few.

*Operator by Affidavit*

Iowa code allows an owner of a plant or distribution system that is required to have a
Grade A, I, IL, II, IIL certified operator may to sign an affidavit with a certified operator of the required classification and grade. This affidavit will verify that the certified operator is the operator in charge and has direct responsibility for a plant or distribution system that does not have first rights on the services of that operator.

**Financing Options for Water and Wastewater Systems**

Upgrading existing water or wastewater utilities can be nearly as expensive as installing a completely new system in areas that previously lacked a public water or wastewater service. Financing options exist to help communities deal with this cost. Many rural water systems have utilized all sources of funding to work with several smaller communities on their water and wastewater service projects.

**Community Development Block Grants (CDBG)**
The primary purpose of the community development block grant program is the development of viable communities by providing decent housing and suitable living environments and expanding economic opportunities, primarily for persons of low and moderate income. About $11 million in federal Community Development Block Grant (CDBG) funds is available annually to cities and counties on an annual competitive basis through the Water/Sewer Fund. All incorporated cities and all counties in the state of Iowa, except those designated as entitlement areas by the U.S. Department of Housing and Urban Development, are eligible to apply for and receive funds under this program.

Assisted activities include sanitary sewer system improvements, water system improvements, water and wastewater treatment facilities, storm sewer projects related to sanitary sewer system improvements, and rural water connections. The Department of Economic Development administers this program in Iowa. For planning purposes, applications are normally due in December and award decisions are announced in March.

**Clean Water State Revolving Loan Fund, Drinking Water State Revolving Loan Fund**
The federal government provides capitalization grants to states to fund two revolving loan funds.

The Drinking Water State Revolving Loan Fund (DWSRF) makes loans to drinking water systems to ensure public health through the provision of safe drinking water. Community public water supplies (PWS) and nonprofit nontransient, noncommunity PWS are eligible to receive funds through this program. Projects eligible for this funding include capital improvements, conservation easements for source water protection, and others. Design and construction costs are eligible for loan assistance once the system has applied for a loan and the project is approved by the IDNR Environmental Protection Commission as part of the annual Intended Use Plan. A DWSRF loan can be used to complement other financial assistance. Applications are accepted throughout the year.

The Clean Water State Revolving Fund (CWSRF) loan program administered by the Iowa Department of Natural Resources provides financing for new wastewater construction projects. The CWSRF loan funds can be used by municipalities and sanitary districts to finance the design
and construction of almost all publicly owned wastewater treatment and conveyance improvements. Applications are accepted throughout the year.

Both programs feature below market interest rate of three percent; no preset limit on the amount that may be borrowed; loans for up to 20 years; multiple year financing; no local match required; can be used in conjunction with Community Development Block Grant funds or Rural Development loans; and public and privately owned systems are eligible.

**Onsite Wastewater Assistance Program**
The Onsite Wastewater Systems Assistance Program (OSWAP) offers low-interest loans through participating lenders to credit-worthy homeowners who need to replace their inadequate or failing onsite septic system. Lenders issue the loans at interest rates of 3% or less, for amounts of between $2,000 and $10,000, for a maximum repayment period of 10 years. The program limits eligibility to owners of existing homes only, in unincorporated areas not served by a public sewer. The program was created to help replace outdated septic systems in Iowa.

The DNR uses the state's Onsite Wastewater Assistance Fund (OSWAF) to buy down loan interest rates charged by participating lenders who agree to make low-interest loans to homeowners for county-approved onsite septic systems. The DNR transfers an amount equal to the loan from the OSWAF into a non-interest demand deposit account with the participating lender. Since the lender assumes the loan risk in this program, a homeowner must first qualify for a loan from the lender to participate. After approving the loan, the lender contacts the OSWAF financial agent to reserve a loan deposit from the OSWAF. After the onsite system is installed and approved by the county sanitarian, the lender requests the loan deposit from the financial agent, who then transfers the loan deposit to the lender. The homeowner then repays the lender for the loan.

The OSWAF is a revolving loan fund authorized by the Iowa Legislature and funded by state appropriations and the U. S. Environmental Protection Agency Clean Water Act.

**U.S. Department of Agriculture Rural Development Loan and Grant Fund**
USDA-Rural Development provides loans, grants and loan guarantees for drinking water, sanitary sewer, solid waste and storm drainage facilities in rural areas and cities and towns of 10,000 or less. Public bodies, non-profit organizations and recognized Indian tribes may qualify for assistance. Rural Development has several mechanisms to deliver this assistance.

**Water and Waste Disposal Loans** can be used to develop water and waste disposal (including solid waste disposal and storm drainage) systems in rural areas and towns with a population not in excess of 10,000. The funds are available to public entities such as municipalities, counties, special-purpose districts, Indian tribes, and corporations not operated for profit. RUS also guarantees water and waste disposal loans made by banks and other eligible lenders.

**Water and Waste Disposal Grants** can be used to reduce water and waste disposal costs to a reasonable level for rural users. Grants may be made for up to 75 percent of eligible project costs in some cases. The same types of applicants are eligible for grants as are for loans.

**Emergency Community Water Assistance Grants** can be used to assist rural communities that have had a significant decline in quantity or quality of drinking water. Grants can be made in rural areas and cities or towns with a population not in excess of 10,000 and a median household
income of 100 percent of a State's non-metropolitan median household income. Grants may be made for 100 percent of project costs. The maximum grant is $500,000 when a significant decline in quantity or quality of water occurred within 2 years, or $150,000 to make emergency repairs and replacement of facilities on existing systems.

To be eligible for USDA Rural Development financial assistance, applicants must:
(1) be unable to obtain needed funds from commercial sources at reasonable rates and terms; (2) have the legal capacity to borrow and to repay loans, to pledge security for loans, and to operate and maintain the facilities; and (3) propose facilities that are consistent with any development plans of the State, multi-jurisdictional area, counties, or municipalities where the project is to be located.

Grants may be provided when necessary to reduce user costs to a reasonable level. They may cover a maximum of 75 percent of eligible facility development costs. Loan guarantees may be available for up to 90 percent of any eligible loss incurred by the lender.

USDA-RD loan and grant funds may be used to: (1) construct, repair, modify, expand, or otherwise improve water supply and distribution systems and waste collection and treatment systems, including storm drainage and solid waste disposal facilities. Certain other costs related to development of the facility may also be covered; (2) acquire needed land, water sources, and water rights; and (3) pay costs such as legal and engineering fees when necessary to develop the facilities. Maximum loan terms are for 40 years.
Tables

Table A: Scope of Services Provided by Rural Water Associations

Table B: Rural Water Systems Overview

Table C: Location of Public Water Supplies in Iowa

Table D: Iowa Incorporated Communities without Public Water and/or Wastewater Services
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Sample Contract Agreements
Interconnect Service
Bulk Water Purchase
Franchise Agreement
28-E Intergovernmental Agreement
Two-Mile Limit Agreement

Case Studies
Regional Water System A and Community 001 – Backup Water Supply
Regional Water System A and Community 002 – Bulk Water Purchase
Regional Water System A and Community 003 – Franchise Agreement
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Best Practices for Success