



Water and Wastewater:

Facility Upgrade and Improvement Costs for the Cities of Iowa

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Cities in Iowa are facing the fiscal burden of complying with the Clean Water Act. This report outlines the results of a survey which examined the fiscal impact of water and wastewater facility upgrades and improvement.

Introduction

In 1972 the United States Federal Government enacted the Water Pollution Control Act (Clean Water Act). The act has been modified several times with the most recent changes affecting Iowa's cities in 1996. "The objective of the Clean Water Act is to restore and maintain the chemical, physical and biological integrity of the nation's waters. Among the national goals stated in the Act are the elimination of the discharge of pollutants into navigable waters by 1985 and, where attainable, the achievement by mid-1983 of an interim goal of water quality sufficient to provide for the protection and propagation of fish, shellfish, and wildlife and for recreation in and on the water." During the 2006 session legislation was passed which required the Iowa Department of Natural Resources (DNR) to conduct a use assessment and use attainability analysis to determine aquatic life uses and recreational uses of all perennial and intermittent streams in Iowa that receive wastewater discharge. The bill was based on the passage of DNR rules whose purpose was to bring Iowa's water quality standards into compliance with the federal Clean Water Act.

Recent pressure on cities comes from various environmental protection organizations that have pursued legal action against cities in an effort to force compliance. This is requiring multi-million dollar water and wastewater facility upgrades that impact cities budgets. These costs are ultimately borne by the consumers.

It is difficult to forecast the total cost for all the cities in Iowa; however, individual city costs were recently captured through a survey administered through a collaborative survey project. The *2008 Multistate Fiscal Conditions Survey* contained Iowa specific questions pertaining to water and wastewater costs. The survey contacted all 947 cities in Iowa, and had a 39 percent response rate (370 responding cities). This report is based on the self-reported results from representatives of the cities across the state of Iowa.

2008 Multistate Fiscal Conditions Survey Specifics

Within the survey the cities were asked to estimate their water treatment and wastewater treatment facility needs and the cost of these improvements and upgrades. The cities were also asked how they were likely to pay for these costs, with response areas including; increase user fees, use of bonding (creating an increase in property taxes), grants from state government, grants from federal government, low interest loans from state government, low interest loans from federal government, or other.

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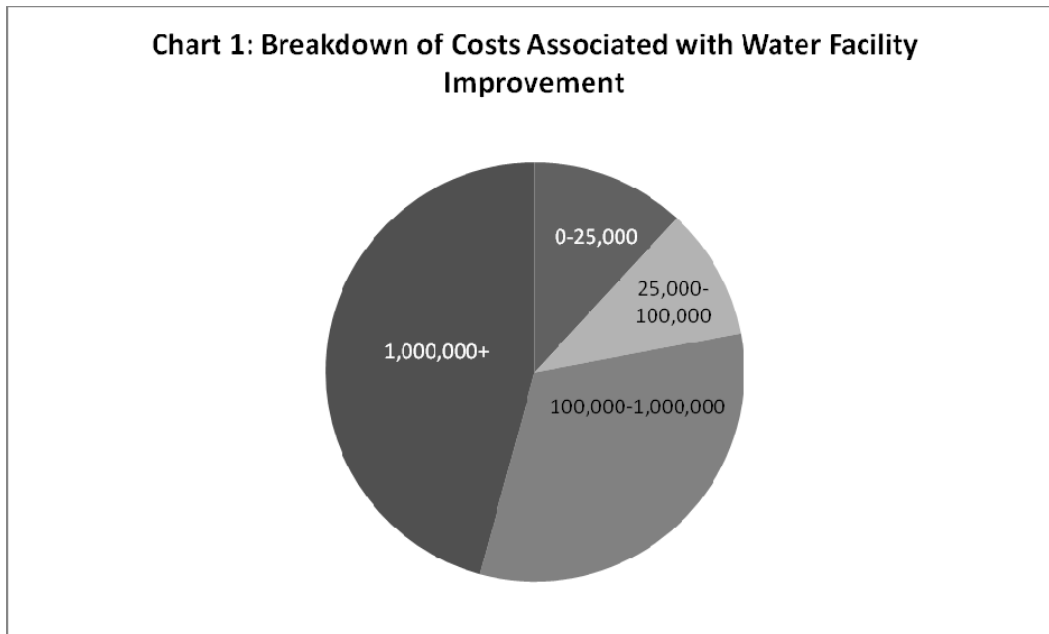
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Water Treatment Facility Improvement and Upgrade Costs

Sixty-nine cities indicated they were making water facility upgrades. However eight of these cities were unsure on the amount the upgrades would cost their city. The remaining 59 cities' costs are represented in the data below.



Of these cities nearly 50 percent estimated the cost of these improvements to be more than one million dollars. Another 32 percent estimated the cost of these improvements to be more than \$100,000. The range of cost estimates aimed as low as \$500 and as high as \$16,000,000, with an average of \$1,506,025 per city. The total cost for water facility improvements from all 59 cities was \$88,855,500.

At this point it is difficult to tell the total number of cities across the state that will need to make water treatment facility improvements; however using the average of \$1,506,025 per city it is evident that the total cost to Iowa would be extreme. If one third of all the cities in Iowa made these changes it would cost an estimated total of \$474,397,875.

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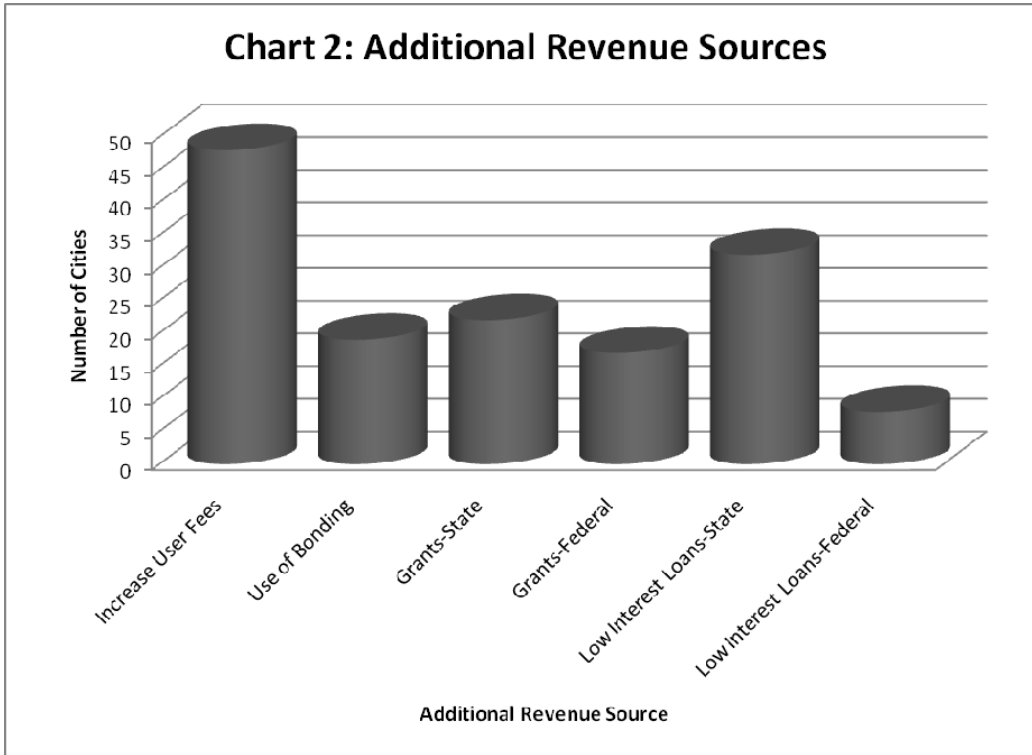
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To cover the huge cost of upgrading water treatment facilities cities must find additional revenue/funding. The possible options for cities are: increase user fees, use of bonding (creating an increase in property taxes), grants from state government, grants from federal government, low interest loans from state government, low interest loans from federal government, or other.



Cities seem to be using a variety of sources to obtain revenue for the project. Increasing user fees is clearly the most common way to increase revenue. By increasing user fees and bonding cities are using money directly from citizens in their communities.

In addition to water facility costs, 33 cities also have wastewater facility costs. These 33 cities are joined by 103 other cities with wastewater facility costs.

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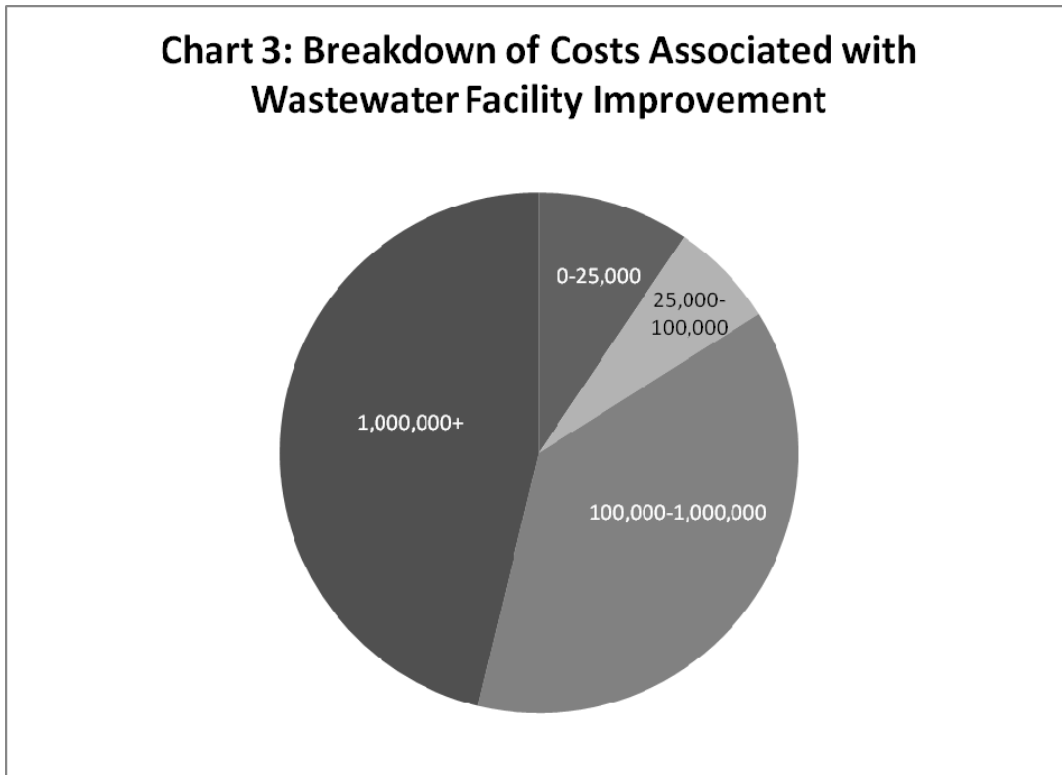
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Wastewater Treatment Facility Improvement and Upgrade Costs

One hundred and thirty-six cities indicated they were making wastewater facility upgrades. However 30 of these cities were unsure of the cost of the upgrades; this left 106 cities' costs to consider.



Of these cities nearly 50 percent estimated the cost of these improvements to be more than one million dollars. Another 38 percent estimated the cost of these improvements to be more than \$100,000. The cost estimates ranged from \$3,000 to \$15 million, with an average of \$1,615,128 per city. The total cost for water facility improvements from all 106 cities was \$171,203,609.

Again it is difficult to tell the total number of cities across the state that will need to make water treatment facility improvements.

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Again, survey options were: increase user fees, use of bonding (creating an increase in property taxes), grants from state government, grants from federal government, low interest loans from state government, low interest loans from federal government, or other.

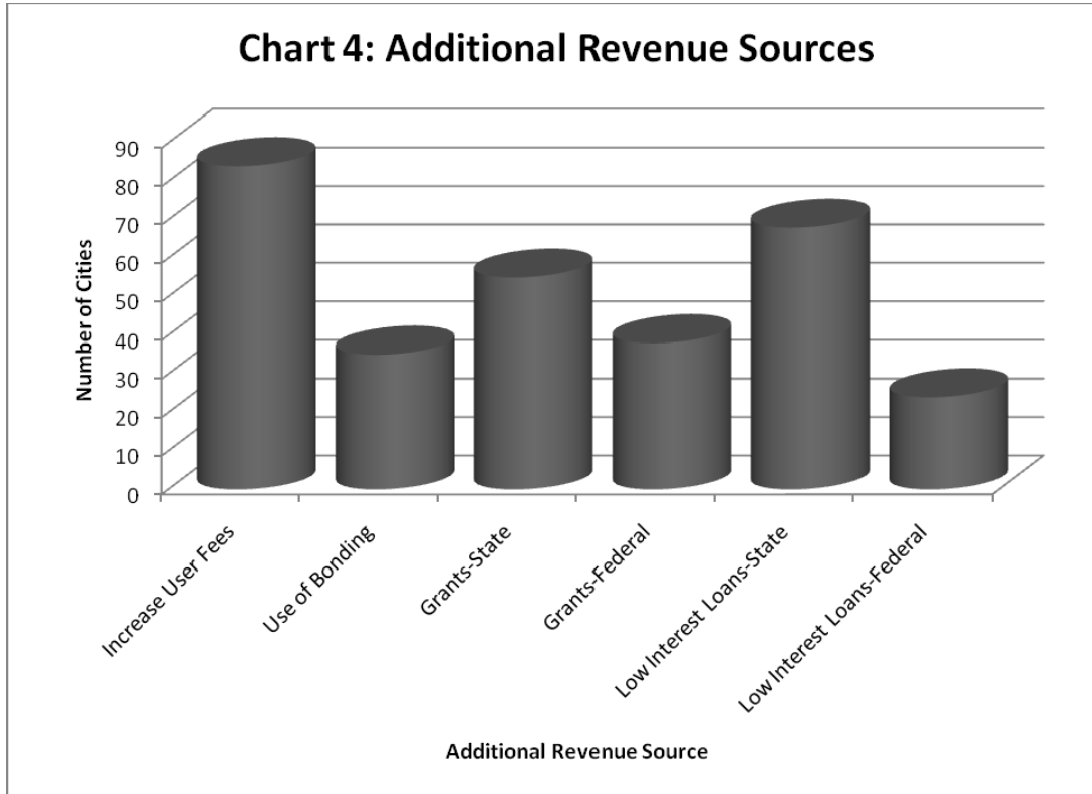


Chart 4 represents the additional revenue sources for wastewater. The additional revenue sources for wastewater follow the same trend as Chart 2.

Individual City Analysis

Another key factor in determining the impact it has on a city by city basis. Table 1 below shows the estimated costs of the Water and Wastewater by city along with the city’s population and general fund expenditures for FY08. These are two key factors that are important to understanding the effects on the individual city. A small town with a small general fund expenditure that has to pay a million dollars for a project would be severely hindered. This amount could be considerably more than they spend on all their general fund activities combined. The general fund pays for all of the city’s Public Safety, Public Works, Health and Social Services, Culture and Recreation, Community and Economic Development and General Government. It is also important to note that the majority of funds would be filtered through the proprietary fund as opposed to the general fund for these cities. The reason that the general fund was used as the comparable instead of the proprietary fund is due to the fact that the proprietary fund contains all the cities proprietary or “business-like” operations, not just the water expenditures. Therefore the general fund was used as a across fields comparable.

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Table 1-Individual City Data

City	Population	FY08 General Fund Expenditures	Estimated cost of water treatment facility needs	Estimated cost of wastewater treatment facility needs	Total Estimated Expense	Total Expense as a percentage of the General Fund
Adel	3,435	\$1,217,665	\$750,000	\$0	\$750,000	62%
Akron	1,489	\$850,745	\$1,000,000	\$0	\$1,000,000	118%
Alburnett	559	\$133,210	\$1,400,000	\$2,500,000	\$3,900,000	2928%
Algona	5,741	\$3,716,525	\$0	\$500,000	\$500,000	13%
Anita	1,049	\$282,200	\$140,000	\$0	\$140,000	50%
Asbury	2,450	\$1,052,501	\$1,000,000	\$3,000,000	\$4,000,000	380%
Bedford	1,620	\$657,213	\$0	\$500,000	\$500,000	76%
Bondurant	1,846	\$957,619	\$0	\$264,065	\$264,065	28%
Brighton	687	\$211,778	\$450,000	\$0	\$450,000	212%
Camanche	4,215	\$2,221,900	\$0	\$2,000,000	\$2,000,000	90%
Carson	668	\$197,630	\$500,000	\$10,000	\$510,000	258%
Centerville	5,924	\$1,534,173	\$0	\$800,000	\$800,000	52%
Cherokee	5,369	\$1,363,990	\$0	\$500,000	\$500,000	37%
Clarinda	5,690	\$1,516,226	\$0	\$750,000	\$750,000	49%
Clemons	148	\$52,272	\$0	\$32,000	\$32,000	61%
Clinton	27,772	\$12,589,400	\$0	\$2,500,000	\$2,500,000	20%
Columbus Junction	1,900	\$457,551	\$0	\$5,000	\$5,000	1%
Correctionville	851	\$408,325	\$1,500,000	\$1,200,000	\$2,700,000	661%
Creston	7,597	\$3,032,372	\$4,000,000	\$1,000,000	\$5,000,000	165%
Cumberland	281	\$112,380	\$200,000	\$100,000	\$300,000	267%
Dana	84	\$12,340	\$0	\$200,000	\$200,000	1621%
Defiance	346	\$90,400	\$500,000	\$125,000	\$625,000	691%
Deloit	288	\$55,500	\$0	\$45,000	\$45,000	81%
Dixon	276	\$186,931	\$750,000	\$240,000	\$990,000	530%
Dows	675	\$221,869	\$0	\$180,000	\$180,000	81%
Duncombe	474	\$195,853	\$35,000	\$25,000	\$60,000	31%
Durant	1,677	\$944,151	\$1,000,000	\$0	\$1,000,000	106%
Earling	471	\$120,665	\$30,000	\$100,000	\$130,000	108%
Earlville	900	\$268,759	\$0	\$100,000	\$100,000	37%
Early	605	\$169,357	\$0	\$1,250,000	\$1,250,000	738%
Eddyville	1,064	\$191,985	\$20,000	\$0	\$20,000	10%
Edgewood	923	\$308,379	\$0	\$1,650,000	\$1,650,000	535%
Ellsworth	531	\$266,254	\$2,700,000	\$0	\$2,700,000	1014%
Ely	1,149	\$374,729	\$2,500,000	\$0	\$2,500,000	667%
Everly	647	\$333,245	\$0	\$2,000,000	\$2,000,000	600%
Farley	1,334	\$440,605	\$0	\$1,500,000	\$1,500,000	340%
Fort Madison	10,715	\$4,612,710	\$16,000,000	\$4,000,000	\$20,000,000	434%
Fostoria	230	\$90,950	\$0	\$600,000	\$600,000	660%

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Garner	2,922	\$1,663,997	\$0	\$3,200,000	\$3,200,000	192%
Geneva	171	\$33,665	\$2,000,000	\$0	\$2,000,000	5941%
Glidden	1,253	\$320,861	\$0	\$100,000	\$100,000	31%
Gowrie	1,038	\$257,102	\$1,000,000	\$3,000,000	\$4,000,000	1556%
Granger	583	\$632,544	\$2,100,000	\$3,000,000	\$5,100,000	806%
Greenfield	2,129	\$835,845	\$0	\$3,000,000	\$3,000,000	359%
Grundy Center	2,596	\$1,009,278	\$0	\$750,000	\$750,000	74%
Hancock	207	\$63,099	\$0	\$300,000	\$300,000	475%
Hastings	214	\$44,566	\$0	\$1,000,000	\$1,000,000	2244%
Hawarden	2,478	\$1,376,758	\$50,000	\$1,000,000	\$1,050,000	76%
Hedrick	837	\$212,167	\$0	\$2,000,000	\$2,000,000	943%
Hills	679	\$238,260	\$5,000,000	\$0	\$5,000,000	2099%
Hornick	253	\$50,350	\$750,000	\$0	\$750,000	1490%
Houghton	130	\$89,335	\$0	\$4,000	\$4,000	4%
Indianola	12,998	\$7,305,500	\$0	\$5,000,000	\$5,000,000	68%
Kalona	2,293	\$734,437	\$0	\$650,000	\$650,000	89%
Keomah Village	97	\$19,795	\$0	\$3,000	\$3,000	15%
Knoxville	7,731	\$2,739,355	\$0	\$7,000,000	\$7,000,000	256%
Lake View	1,278	\$498,910	\$0	\$50,000	\$50,000	10%
Lakota	255	\$83,834	\$0	\$1,500,000	\$1,500,000	1789%
Lansing	1,012	\$853,021	\$0	\$2,500,000	\$2,500,000	293%
LeClaire	2,847	\$1,548,174	\$0	\$6,000,000	\$6,000,000	388%
Lidderdale	186	\$60,976	\$0	\$150,000	\$150,000	246%
Lone Tree	1,151	\$255,988	\$0	\$2,000,000	\$2,000,000	781%
Long Grove	597	\$181,567	\$0	\$2,176,000	\$2,176,000	1198%
Lu Verne	299	\$146,800	\$0	\$1,500,000	\$1,500,000	1022%
Luther	158	\$49,700	\$0	\$1,656,000	\$1,656,000	3332%
Macedonia	325	\$90,528	\$0	\$460,000	\$460,000	508%
Madrid	2,264	\$812,754	\$200,000	\$50,000	\$250,000	31%
Malcom	352	\$115,685	\$0	\$320,000	\$320,000	277%
Mapleton	1,322	\$740,996	\$0	\$120,000	\$120,000	16%
Marcus	1,139	\$287,149	\$1,000,000	\$0	\$1,000,000	348%
Marengo	2,535	\$845,380	\$3,200,000	\$250,000	\$3,450,000	408%
Mason City	29,172	\$15,098,873	\$0	\$10,000,000	\$10,000,000	66%
Maxwell	807	\$204,201	\$900,000	\$5,000,000	\$5,900,000	2889%
Maynard	500	\$132,936	\$376,000	\$0	\$376,000	283%
McCausland	318	\$116,504	\$0	\$1,700,000	\$1,700,000	1459%
McGregor	871	\$384,774	\$0	\$15,000	\$15,000	4%
Missouri Valley	2,992	\$1,464,064	\$4,500,000	\$0	\$4,500,000	307%
Mondamin	423	\$177,700	\$600,000	\$800,000	\$1,400,000	788%
Mount Auburn	160	\$22,540	\$0	\$305,000	\$305,000	1353%
Mount Ayr	1,822	\$680,822	\$0	\$4,000,000	\$4,000,000	588%
Mount Pleasant	8,751	\$2,803,370	\$3,000,000	\$2,500,000	\$5,500,000	196%
Mount Vernon	3,390	\$1,221,466	\$6,000,000	\$150,000	\$6,150,000	503%
Muscatine	22,697	\$14,087,300	\$0	\$15,000,000	\$15,000,000	106%
Nashua	1,618	\$1,356,863	\$0	\$2,800,000	\$2,800,000	206%

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New Hampton	3,692	\$1,536,089	\$0	\$200,000	\$200,000	13%
Nora Springs	1,532	\$373,229	\$1,250,000	\$0	\$1,250,000	335%
Odebolt	1,153	\$367,418	\$10,000	\$500,000	\$510,000	139%
Oelwein	6,692	\$1,702,283	\$2,800,000	\$12,000,000	\$14,800,000	869%
Okoboji	820	\$1,016,198	\$3,750,000	\$0	\$3,750,000	369%
Onslow	223	\$67,848	\$30,000	\$12,000	\$42,000	62%
Osceola	4,659	\$2,614,302	\$0	\$2,000,000	\$2,000,000	77%
Otho	571	\$120,966	\$35,000	\$10,000	\$45,000	37%
Oxford Junction	573	\$129,124	\$0	\$1,400,000	\$1,400,000	1084%
Paullina	1,124	\$584,135	\$0	\$520,000	\$520,000	89%
Plymouth	429	\$142,428	\$0	\$533,700	\$533,700	375%
Pocahontas	1,970	\$877,669	\$0	\$200,000	\$200,000	23%
Postville	2,273	\$811,716	\$0	\$7,000,000	\$7,000,000	862%
Princeton	946	\$332,325	\$1,450,000	\$1,630,000	\$3,080,000	927%
Raymond	537	\$171,776	\$0	\$2,000,000	\$2,000,000	1164%
Reinbeck	1,751	\$665,860	\$0	\$50,000	\$50,000	8%
Remsen	1,762	\$585,273	\$100,000	\$1,000,000	\$1,100,000	188%
Rinard	72	\$14,400	\$500	\$0	\$500	3%
Riverton	304	\$62,400	\$500,000	\$0	\$500,000	801%
Rodman	56	\$17,574	\$5,000	\$0	\$5,000	28%
Roland	1,324	\$557,084	\$0	\$750,000	\$750,000	135%
Rowan	218	\$73,174	\$14,000	\$0	\$14,000	19%
Royal	479	\$144,716	\$0	\$776,309	\$776,309	536%
Shambaugh	188	\$33,779	\$5,000	\$10,000	\$15,000	44%
Sheffield	930	\$310,385	\$0	\$2,000,000	\$2,000,000	644%
Shellsburg	938	\$219,178	\$800,000	\$300,000	\$1,100,000	502%
Slater	1,306	\$497,298	\$520,000	\$0	\$520,000	105%
Spirit Lake	4,261	\$1,722,603	\$4,300,000	\$0	\$4,300,000	250%
Springbrook	182	\$34,440	\$0	\$20,000	\$20,000	58%
St Ansgar	1,031	\$395,184	\$35,000	\$114,000	\$149,000	38%
Stockton	182	\$92,612	\$885,000	\$175,000	\$1,060,000	1145%
Stratford	746	\$335,889	\$1,100,000	\$0	\$1,100,000	327%
Swea City	642	\$323,437	\$0	\$1,200,000	\$1,200,000	371%
Tipton	3,155	\$2,008,686	\$15,000	\$20,000	\$35,000	2%
Tripoli	1,310	\$281,009	\$0	\$3,000,000	\$3,000,000	1068%
Underwood	688	\$229,467	\$0	\$2,000,000	\$2,000,000	872%
Urbana	1,019	\$315,473	\$0	\$5,000,000	\$5,000,000	1585%
Victor	952	\$678,000	\$0	\$1,300,000	\$1,300,000	192%
Villisca	1,344	\$881,712	\$0	\$3,000,000	\$3,000,000	340%
Wahpeton	462	\$364,404	\$500,000	\$0	\$500,000	137%
Walnut	778	\$444,474	\$2,000,000	\$0	\$2,000,000	450%
Waukee	5,126	\$4,460,789	\$0	\$160,000	\$160,000	4%
Wayland	945	\$312,209	\$0	\$500,000	\$500,000	160%
Wellman	1,393	\$313,553	\$100,000	\$100,000	\$200,000	64%
Welton	159	\$51,510	\$0	\$250,000	\$250,000	485%
Wheatland	772	\$213,068	\$0	\$2,247,535	\$2,247,535	1055%
Woodbine	1,564	\$1,553,266	\$1,500,000	\$40,000	\$1,540,000	99%
Woodward	1,200	\$475,441	\$2,000,000	\$0	\$2,000,000	421%

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Conclusion

Water and wastewater facility updates and improvements will continue to have a huge fiscal impact on the cities of Iowa, as seen by the results of the *2008 Multistate Fiscal Conditions Survey*. Cities are sharing this financial burden with their citizens who are seeing increased user fees and property taxes (through bonding).



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