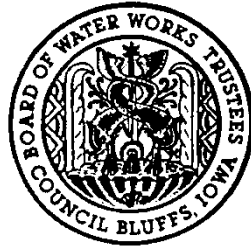


# 2017



# ANNUAL REPORT



## **COUNCIL BLUFFS WATER WORKS**

*Safe Drinking Water Is Our Business*

## ***MISSION STATEMENT:***

***THE COUNCIL BLUFFS WATER WORKS IS COMMITTED TO PROVIDING THE BEST POSSIBLE SERVICE WHILE SUPPLYING ADEQUATE QUANTITIES OF HIGH QUALITY TAP WATER TO MEET ALL THE DOMESTIC, INDUSTRIAL AND FIRE PROTECTION NEEDS OF OUR CUSTOMERS AND OUR COMMUNITY.***

Front Cover Photo:

Top: Narrows Water Purification Plant and Bottom: Council Point Water Purification Plant

## CHAIRMAN'S REPORT

In 2017, nearly ninety percent or \$2,600,000 of our capital improvement dollars were directed toward water distribution system improvements, most of which was for water main replacement efforts. The Council Bluffs Water Works continues to coordinate with the IDOT for on-going Interstate improvements requiring relocations of water mains. We also continued our coordination of projects with the City including joint projects in the 1<sup>st</sup> Street Neighborhood area and East Manawa. The joint project formula has resulted in value added benefits for our customers and community. As the City continues the major reconstruction project of West Broadway the Board found it necessary to fast track projects to meet the City's schedule. This included bidding West Broadway-Segment 2 in the fall of 2017 and completing the work through the winter months as a stand-alone Water Works project. Following additional analysis, the Water Works determined that an alternate route for a new transmission main on Avenue A will result in efficiency of construction and lower costs. Moving the transmission main from Broadway to Avenue A will result in less disruption in the Broadway corridor in the future. This project will consume a large portion of our capital budget for the next several years. While West Broadway Segment 1 & Segment 2 projects were funded solely by water rates the Board is considering funding the majority of the remaining work through the State Revolving Loan Fund.

Beyond coordinating with other agencies, the Water Works supports developer driven projects throughout the community to extend water mains including the new River's Edge development. The Board worked with Neighborhood Associations to replace water main. One such example was replacement of the water main on North Broadway. After hearing customer's concerns about the number of water main breaks in the area the Board instructed staff to develop a plan of action for replacement. Following meetings with the North Broadway Neighborhood Association the Board approved a two-year water main replacement project. That project is now complete.

Even with all the demands for resources required to maintain our water system the Board is committed to maintaining stable water rates. A well maintained public water system is essential to a community's public health, public safety, economic development and quality of life. The Board of Water Works Trustees and Water Works employees will meet any challenge to fulfill its obligation and mission to our customers to provide a safe, dependable and affordable supply of high quality drinking water from the tap. Please read this report that details the accomplishments and challenges of the dedicated employees of the Council Bluffs Water Works.

Caitlin A. Beresford  
Chairperson

Trustees:  
Carl L. Heinrich  
Martin L. Brooks  
Maureen R. Kruse  
Michael J. Wallner

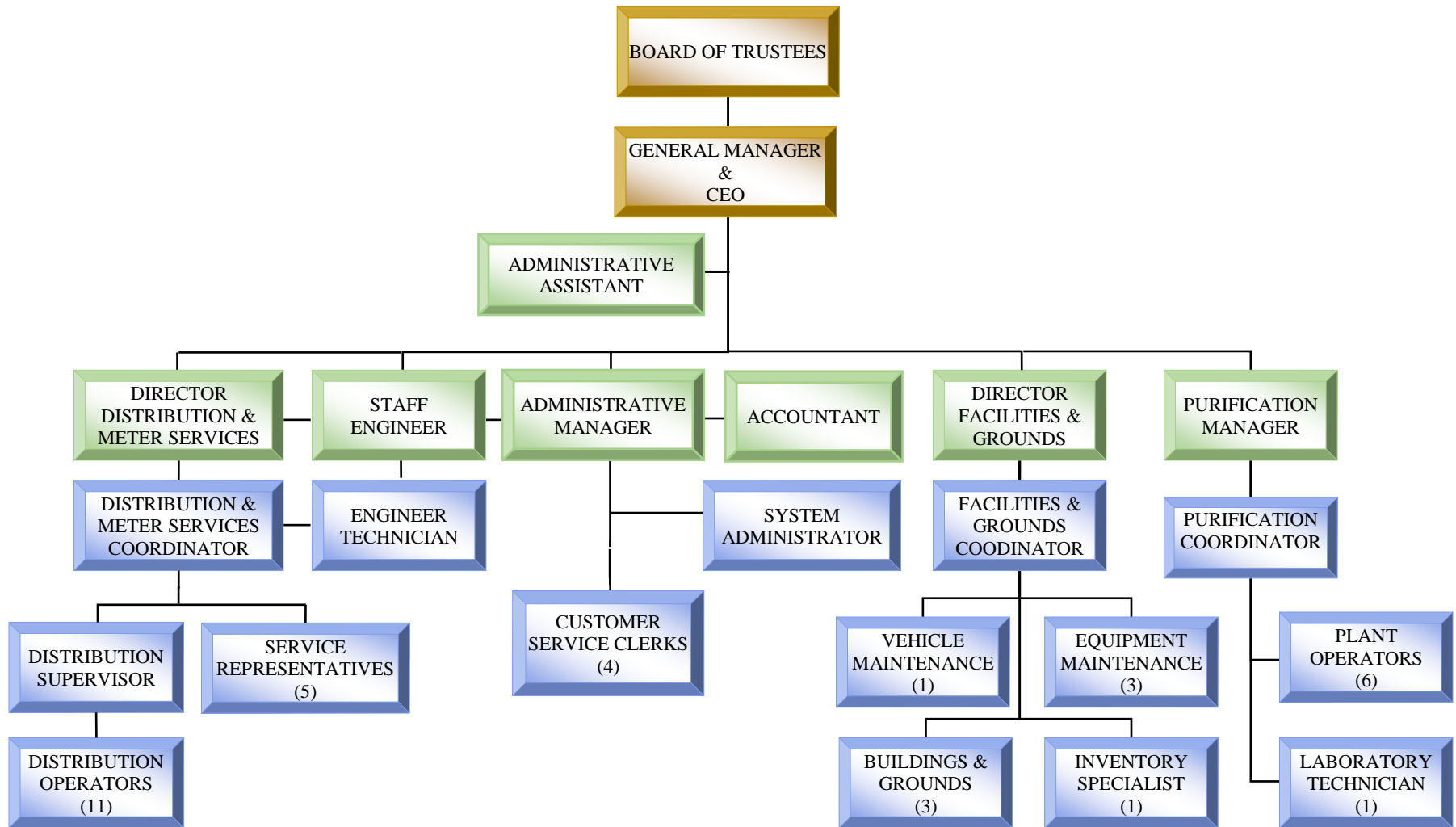
**2017  
RATE SCHEDULE**

Monthly Retail Volume Charges		
	Monthly Billing	
	Inside City (\$/CCF)	Outside City (\$/CCF)
First 1,500 Cubic Feet	\$3.35	\$5.03
Next 28,500 Cubic Feet	\$2.44	\$3.66
Over 30,000 Cubic Feet	\$1.54	\$2.31

Bi-Monthly Retail Volume Charges		
	Bi-Monthly Billing	
	Inside City (\$/CCF)	Outside City (\$/CCF)
First 3,000 Cubic Feet	\$3.35	\$5.03
Next 57,000 Cubic Feet	\$2.44	\$3.66
Over 60,000 Cubic Feet	\$1.54	\$2.31

Cubic foot = 7.48 gallons  
 100 cubic feet (CCF) = 748 gallons

# COUNCIL BLUFFS WATER WORKS ORGANIZATIONAL CHART



**ORGANIZATION**

**AND**

**PERSONNEL**

## BOARD OF WATER WORKS TRUSTEES

Chairperson	Caitlin A. Beresford	term expires June 30, 2018
Trustee	Carl L. Heinrich	term expires June 30, 2021
Trustee	Martin L. Brooks	term expires June 30, 2019
Trustee	Maureen R. Kruse	term expires June 30, 2022
Trustee	Michael J. Wallner	term expires June 30, 2022

### *STAFF*

CEO and General Manager:	Douglas P. Drummey	Iowa Grade IV Operator
Administrative Assistant:	Celestine Powell	
Staff Engineer:	Brian T. Cady	Professional Engineer

### *PURIFICATION DEPARTMENT*

Purification Manager:	John M. Meads	Iowa Grade IV Operator
Coordinator:	---	---
Personnel:	Rodney A. Scott	Iowa Grade IV Operator
	Timothy C. Parker	Iowa Grade IV Operator
	Joseph S. Rhoades	Iowa Grade III Operator
	Brandon L. Wear	Iowa Grade III Operator
	Ian J. Cassidy	Iowa Grade III Operator
	Ketrick E. Dilworth	Iowa Grade II Operator
	Cody R. Weddon	Iowa Grade II Operator

### *DISTRIBUTION & METER SERVICES DEPARTMENT*

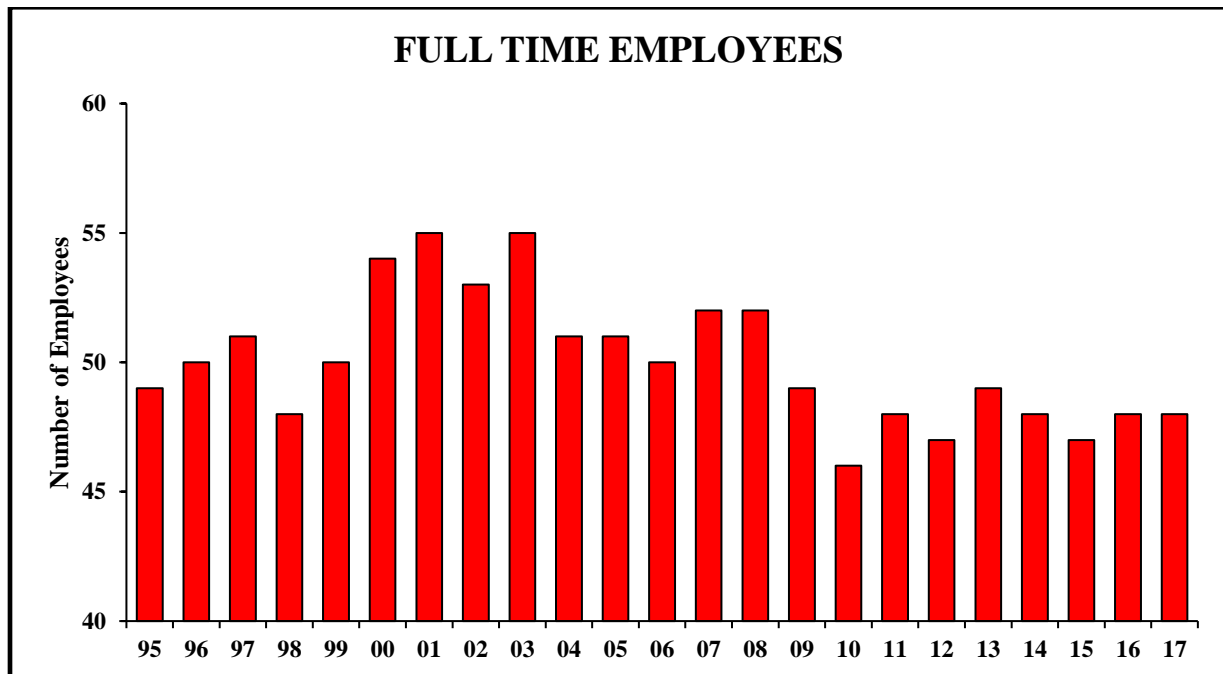
Director:	William E. Wiggins Jr.	Iowa Grade IV Operator
Coordinator:	Douglas P. Adkins	Iowa Grade II Operator
Supervisor:	Josh W. Ryan	Iowa Grade II Operator
Engineering Technician:	Karen R. Cedeno-Perdue	
Distribution Personnel:	Matthew L. Farrell	Iowa Grade II Operator
	Jeffrey A. Schuster	Iowa Grade II Operator
	Robert D. Hildreth	Iowa Grade II Operator
	Sammy J. McNeal	Iowa Grade I Operator
	Dustin L. Christensen	Iowa Grade I Operator
	Jacob J. Slobodnik	Iowa Grade I Operator
	Michael J. Tornblom	
	Jeffrey S. Chanley	
	Edwin C. Kuhl	
	Logan S. Hudspeth	
	Chad D. Underwood	
Meter Personnel:	Kyle W. Newsom	
	Stephen J. Ronk	
	Russell D. Osbahr	
	Kenny C. McKeighan	
	Chad M. Springer	

**FACILITIES & GROUNDS DEPARTMENT**

Director:	Raymond P. Stevens	Iowa Grade IV Operator
Coordinator:	Phil V. Kinart	Iowa Grade II Operator
Personnel:	Elden D. Tackett Mark P. Applegate James L. Smith Jr. Joseph A. Masker Shane E. Ruckman Frank J. Bouska Jr. Andrew D. Diller Matthew B. Truax	Iowa Grade I Operator

**CUSTOMER SERVICE & ACCOUNTING DEPARTMENT**

Administrative Manager:	Karen A. Wisniski
Systems Administrator:	Bruce M. Riegel
Personnel:	Travis P. Anderson Lisa A. Hammer Loni N. Neve Amy M. Driver Alyssia J. Wiebold





**HIGHLIGHTS**  
**AND**  
**STATISTICS**

## ***PURIFICATION DEPARTMENT***

The Purification Department's primary responsibility is to produce safe drinking water in compliance with all Federal and State Drinking Water Standards. The Council Bluffs Water Works delivered 4,142,655,000 gallons of potable water to our customers in 2017. The Narrows Water Purification Plant produced 3,259,275,000 gallons for an average of 8.930 million gallons per day. The Council Point Water Purification Plant produced 883,380,000 gallons for an average of 2.420 million gallons per day. In typical fashion our peak month occurred during the summer in July, when more than 459,000,000 gallons of water was pumped to the system at an average daily flow of 14.825 million gallons of water per day. The peak day occurred on July 20<sup>th</sup> when 17,570,000 gallons was pumped to the system.

The sampling and analysis for the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) performed by the Purification Department were completed in 2017. In the fall of 2015, surface water systems were required to conduct source water monitoring for Cryptosporidium, E.coli, and turbidity monthly for a period of two years. The two year period for this monitoring ended in October 2017. The LT2ESWTR and the Stage 2 Disinfection Byproduct Rules, was the second round of rules established by the United States Environmental Protection Agency (USEPA). These rules are intended to strengthen protection against microbial contaminants especially cryptosporidium and reduce potential health risk from disinfection byproducts. Cryptosporidium is a significant concern in drinking water because it contaminates most surface waters used as drinking water sources, it is resistant to chlorine and other disinfectants, and it has caused waterborne disease outbreaks in other parts of the United States. Consuming water with cryptosporidium can cause gastrointestinal illness, which may be severe and sometimes fatal for people with weakened immune systems which may include infants, the elderly, and people who have contracted AIDS. The Council Bluffs Water Works does source water monitoring from the Missouri River. The department collected 24 water samples in 2017 and had them analyzed for cryptosporidium. The monitoring of the water from the river indicates the presence of cryptosporidium. However, the analysis of the treated water or finished water has shown no presence of the pathogen.

The Council Bluffs Water Works completed its tri-annual round of Lead and Copper testing in 2017. The 90<sup>th</sup> percentile for lead in the first round was 0.002 mg/L and in the second round it was 0.003 mg/L. The action level for lead is 0.15 mg/L. The 90<sup>th</sup> percentile for copper was 0.07 mg/L in the first round and 0.08 mg/L in the second round. The action level for copper is 1.3 mg/L. All analytical results were well below the action limits for both lead and copper. Having results well below the action limits for both contaminants plays a very important role in assuring the public the Council Bluffs Water Works supplies a quality product. Customers who participated in rounds of testing have received the analytical results for their locations. Elevated levels of lead and copper in drinking water can pose serious health concerns, especially for pregnant women and young children. Lead and copper testing is usually done once every three years at reduced monitoring levels, but due to the Flint Michigan water incident, the Council Bluffs Water Works is now placed into full monitoring for lead and copper. With the addition of the Council Point Water Purification Plant facility, the Council Bluffs Water Works collected 153 samples.

The Council Bluffs Water Works Certified Bacteriological Laboratory processed a total of 2,572 bacteriological samples in 2017. Of the samples processed, 1,762 were for the Council Bluffs Water Works, 401 for other public water supplies, 121 pool samples, and 288 "Special Purpose" samples which consist of samples taken after water main breaks. The Laboratory Technician also collected 192 samples for disinfection by-product analysis and 212 total suspended solid samples for National Pollutant Discharge Elimination System/Sanitary Discharge Compliance.

The Council Bluffs Water Works changed out the granular activated carbon (GAC) in three of its Narrows Purification Plant Filter Beds in 2017. GAC is made from raw organic materials such as bituminous coal that is high in carbon. Heat in the absence of oxygen is used to increase (activate) the surface area of the carbon. The activated carbon removes certain chemicals that are dissolved in water passing through a filter containing GAC by trapping (absorbing) the chemical in the GAC. This helps in the process of removing taste and odors in the drinking water. The exchange of the GAC in the Narrows Water Purification Plants Filter Beds number 1, 2 and 4 required roughly 80,000 lbs. of the new product.

The departments performed numerous cleans to the Ultra Filtration (UF) System throughout 2017 to maintain optimum performance at the Council Point Water Purification Plant. Council Point has three trains with four sets of cassettes for a total of twelve (12) cassettes. Each cassette contains 57 modules. Each module contains 30,000 fibers that are cleaned routinely to keep the filtration fibers performing properly. There is a weekly clean referred to as a "Maintenance Clean" and a monthly clean referred to as a "Recovery Clean". These cleans keep the UF fibers free of inorganic and organic

fouling and functioning within given parameters to increase the lifespan of the UF fibers. This is an involved process with many steps. In all, 307 maintenance cleans and 151 recovery cleans were performed by the department in 2017.

**2017 Water Quality Facts and Figures**

**Narrows Purification Plant**

Total Gallons Pumped to System	3,259,275,000	
Average Gallons Pumped to System (daily)	8,930,000	
Maximum Gallons Pumped to System (single day)	13,900,000	
Average Gallons Used Per Person Per Day	181	
Source of Water	Missouri River & Missouri River Alluvium	
Finished Water Chemical Analysis		
pH	9.2	Standard Units
Alkalinity	64	mg/L as CaCO <sub>3</sub>
Hardness	163	mg/L as CaCO <sub>3</sub>
Calcium	97	mg/L as CaCO <sub>3</sub>
Magnesium	66	mg/L as CaCO <sub>3</sub>
Non-Carbonate Hardness	99	mg/L as CaCO <sub>3</sub>
Total Chlorine	2.20	mg/L as Cl <sub>2</sub>
Fluoride	0.69	mg/L as F <sup>-</sup>
Turbidity	0.08	Nephelometric Turbidity Units
Annual Average Temperature (Fahrenheit)	56	degrees

**Council Point Purification Plant**

Total Gallons Pumped to System	883,380,000	
Average Gallons Pumped to System (daily)	2,420,000	
Maximum Gallons Pumped to System (single day)	4,280,000	
Average Gallons Used Per Person Per Day	181	
Source of Water	Missouri River Alluvium	
Finished Water Chemical Analysis		
pH	8.1	Standard Units
Alkalinity	196	mg/L as CaCO <sub>3</sub>
Hardness	156	mg/L as CaCO <sub>3</sub>
Calcium	111	mg/L as CaCO <sub>3</sub>
Magnesium	45	mg/L as CaCO <sub>3</sub>
Total Chlorine	2.18	mg/L as Cl <sub>2</sub>
Fluoride	0.63	mg/L as F <sup>-</sup>

Turbidity

0.17 Nephelometric Turbidity Units

Annual Average Temperature (Fahrenheit)

57 degrees

The following chemicals and quantities were used to treat our water:

**Narrow Water Purification Plant**

<u>Water Treatment Chemical</u>	<u>Tons Used</u>	<u>\$ Cost</u>
Lime	1,839.0	\$350,517
Ferric Sulfate	179.8	105,815
Soda Ash	196.3	54,729
Liquid Chlorine	71.4	49,854
Sodium Hexametaphosphate	4.6	8,821
Sodium Silicofluoride	7.1	7,089
Polymer	18.4	15,670
Potassium Permanganate	5.2	19,291
Powder Activated Carbon	16.6	24,883
Anhydrous Ammonia	8.0	13,546
Sodium Chlorite	6.2	<u>11,496</u>
Total Water Treatment Chemical Cost		<u>\$661,711</u>

**Council Point Water Purification Plant**

<u>Water Treatment Chemical</u>	<u>Tons Used</u>	<u>\$ Cost</u>
MCI310 Antiscalant	11.2	\$ 42,493
Aqueous Ammonia	8.1	2,377
Citric Acid	8.5	7,988
Hydrofluosilicic Acid	9.7	5,995
Hydrochloric Acid	141.6	22,364
Ortho-polyphosphate	3.1	2,802
Anionic Polymer	1.1	1,961
Kleen MCT – 105, Low pH	3.8	41,175
Kleen MCT – 405, High pH	2.5	13,104
Sodium Bisulfite	4.6	2,068
Sodium Hydroxide	228.1	62,952
Sodium Permanganate	44.0	68,610
Sodium Chloride	40.5	<u>6,933</u>
Total Water Treatment Chemical Cost		<u>\$280,822</u>

## ***DISTRIBUTION DEPARTMENT***

The Distribution Department is responsible for the maintenance and operation of all underground facilities in the water distribution system and fire hydrants, including 302 miles of water main, 8,043 valves and 2,971 fire hydrants. The department responds to emergency call-outs 24/7 under all weather conditions to repair water main breaks and restore water service to Water Works' customers in a timely manner.

In 2017, the Distribution Department continued with the leak survey of our entire system, and maintained all fire hydrants as a part of our annual hydrant maintenance program. Additionally, our personnel responded to 99 emergency call-outs throughout the year during all hours and weather conditions to ensure continued water service to our customers.

The Distribution Department's water main replacement efforts this year continued in support of city street and sewer replacement projects. Water mains were also added in new developments. Department personnel repaired approximately 2,435 square yards of Portland Cement Concrete (PCC) paving, 104 square yards of additional (PCC) paving and 365 square yards of asphalt overlay was installed by various contractors.

This year the department:

- Made 149 small taps, and 18 purification taps
- Replaced/Killed 66 lead services
- Checked 408 service leaks
- Turned on/off 89 services
- Repaired 34 service lines and 127 curb boxes
- Replaced 30 services from the main to stop box
- 3 services were moved for construction by Water Works personnel
- 74 services were connected by contractors
- Killed 36 services at the main and 3 at the curb stop
- Answered 7,591 requests for service line or main location
- Turned 417 large valves, rebuilt 11, replaced 9 and added 1 new valve
- Installed 28 additional valves with Water Works mains
- Repaired 51 main breaks, moved 3 water mains
- Repaired 45 valve boxes
- Made 8 large taps (4 inches and above)
- Removed 16 fire hydrants from service which were obsolete, damaged or for main replacement
- 8 hydrants were replaced by Water Works personnel
- 4,385 hydrants were listened to while performing leak survey
- Checked 4,168 hydrants
- Repaired 38 hydrants
- Relocated 4 hydrants
- Flushed 485 hydrants
- Thawed out 17 fire hydrants

Observed installation of 20,275 feet of new mains installed by contractors.

Mains installed by the Distribution Department were:

- 600 feet of 16 – inch main

Mains installed by contractors were:

- 386 feet of 6 – inch main
- 8,717 feet of 8 – inch main
- 1,450 feet of 10 – inch main
- 6,797 feet of 12 – inch main
- 2,925 feet of 16 – inch main

## ***METER SERVICES DEPARTMENT***

The Meter Department's primary function is to read over 22,000 water meters on a monthly and bi-monthly basis, repair and replace meters as needed, complete disconnect and reconnect orders, collect delinquent accounts and respond to service call requests as needed.

In 2017, the Meter Department continued to upgrade and exchanged 5 water meters as part of our meter replacement program. While continuing to maintain and upgrade the Water Works' 22,000 plus water meters, we installed an additional 172 radio read meters to improve meter reading efficiency.

In addition to the meter exchanges this year the department:

- Replaced 137 dead meters
- Removed 24 meters for demolition
- Repaired 49 leaking meters
- Replaced 55 frozen meters
- Installed 196 touch pads
- Installed 172 radio reading devices
- Exchanged 112 radio reading devices
- Exchanged 214 radio reading batteries
- Set 104 new addresses with meters
- Set 20 new addresses with large meters
- Exchanged 76 small meters
- Exchanged 8 large meters
- 5 meters were exchanged for the Meter Exchange Program
- There were a variety of 2,047 non-scheduled orders
- 111 meters were tested for accuracy or malfunction
- Wired 107 new construction homes
- Rewired 90 existing customer homes
- Monitored 543 new construction homes
- Checked 53 homes for low water pressure
- Surveyed 202 accounts for leaks
- Set and Removed 119 Hydrant Meters
- Performed 3,338 final readings
- Read 3,679 RMMS (Reading Meter Management System)
- Researched 411 high bill orders
- Verified 321 meter readings
- 1,035 notes were left to read the meter
- Turned on 1,249 delinquent accounts for Customer Service
- 5,331 cards were left for delinquent accounts
- Turned on 1,249 water services
- Turned off 894 water services
- Inspected Pump Stations 2,480
- Investigated 2 water main leaks
- Investigated 20 service leaks
- There were 142,752 meter readings

## ***FACILITIES & GROUNDS DEPARTMENT***

The Facilities and Grounds Department is responsible for the maintenance of all facilities, equipment, buildings and grounds, including the Narrows and Council Point Water Purification Plants, Administration Building, five (5) Booster Pump Stations, four (4) Ground Storage Reservoirs, and five (5) Elevated Storage Tanks. The eleven (11) locations account for approximately 217 acres of land spread throughout the city, along with the equipment at and within those facilities, including but not limited to HVAC systems, pumps and their control systems, telemetry and process monitoring equipment. The Facilities and Grounds crew takes pride in maintaining the appearance of all Water Work's properties and facilities.

Department personnel oversee the daily operations of the store room and warehouse. The Inventory Specialist is responsible for the purchase, storage and allocation of material and resources needed for all departments with an inventory value at \$842,249.54.

The department maintains the organization vehicle and equipment fleet with over forty (40) pieces of equipment including automobiles, service trucks, dump trucks, backhoes, tractors, mowers, compressors, welders, trailers and specialty equipment used for concrete and water main repair.

Power and fuel are essential to our operations. It took 9,105,029 kWh of electricity at a cost of \$563,637.18 to process and distribute over four billion gallons of water. We also used 18,253 gallons of lead free gasoline at a cost of \$37,014.13 and 9,921 gallons of red diesel fuel at a cost of \$19,845.66 to fuel the Water Works fleet. We used 33,177 thousand cubic feet (MCF) of natural gas at a cost of \$22,177.29 to heat our buildings and structures.

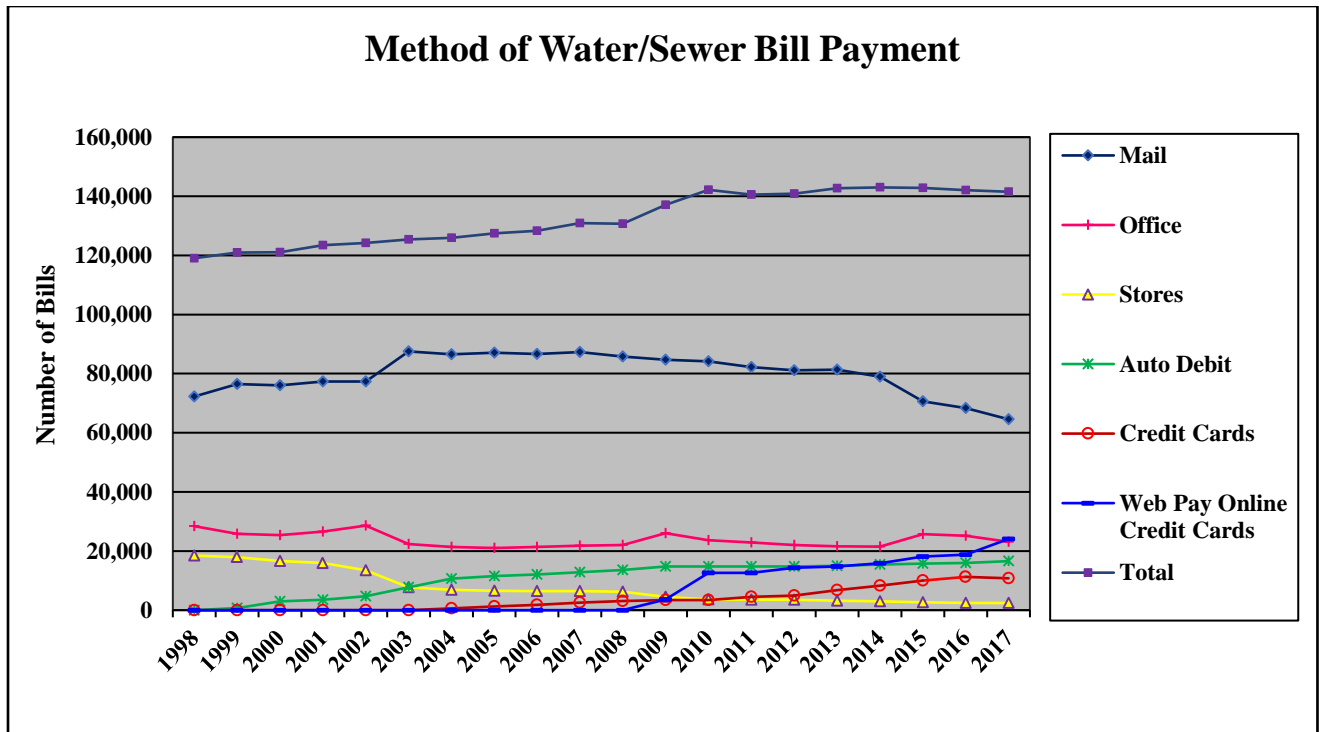
### ***CUSTOMER SERVICE & ACCOUNTING DEPARTMENT***

Our Customer Service Representatives do an excellent job assisting Water Works customers with their questions concerning their bills, turning on/off services, signing up for service and paying bills, whether it is by telephone or in person. If Customer Service need to send a Service Representative to the customer's location, a service order is prepared for the Meter Department and then processed when the order is completed.

In 2017, the department mailed out 135,218 water bills, and sent 35,705 reminder notices and 19,934 shut-off notices to customers. There were 141,539 payments processed. There were 16,580 automatic bank payments. There were 7,689 service orders processed for final readings, high bills, dead meters, or to install new meters. There were 397 meters installed or replaced. Customer Service Representative made 1,715 payment arrangements with customers. 955 water bills were paid on the day of shut-off and 1,021 services were discontinued for non-payment. There were 140 returned checks that had to be collected from customers. 4,597 service contracts were processed to transfer, reinstate or add new customers to the system.

The Council Bluffs Water Works continues to see an increase in the number of customers paying their bills on our website. There were 10,740 credit card payments and 24,076 online web credit card payments.

The Accounting Department processed \$18,766,873.93 in receipts and payments in 2017, including processing water and sewer bill payments and making the daily bank deposits. The department is responsible for processing accounts payable invoices, checks, payroll, the budget, fixed assets and other information for the general ledger. The department prepares monthly reports for the Board and other departments. The most recent audit found no irregularities or deficiencies in accounting practices and procedures.



**GENERAL INFORMATION**

The Council Bluffs Water Works has 21,989 active service accounts: 20,134 residential; 1,855 are commercial or industrial.

Last year, total production was 4,142,655,000 gallons.

Residential customers consumed 1,065,384,628 gallons in 2017. The average residential customer used 52,988 gallons at a cost of \$257.82 per year or \$21.49 per month.

Our top ten customers consumed 1,415,003,568 gallons, 34% total production.

**SERVICES PROVIDED OUTSIDE THE CITY OF COUNCIL BLUFFS, IOWA**

636 outside-City customers paid \$809,293.43 for 205,117,308 gallons of water.

The City of Crescent paid \$60,170.76 for 20,653,776 gallons of water.

Regional Water paid \$157,254.75 for 49,267,020 gallons of water.

In total, outside City Customers paid \$1,026,718.94 for 275,038,104 gallons of water. This represents 8.93% of metered water sales and 6.6% of total water production.

**SERVICES PROVIDED TO THE CITY OF COUNCIL BLUFFS, IOWA**

The Council Bluffs Water Works provided 72,630,052 gallons of water to the City free of charge, having a value of \$224,006.82. Also, on behalf of the City, the Council Bluffs Water Works collected \$6,283,820.07 in sewer use fees.



**TOP TEN CUSTOMERS**

	<u>2017 Rank</u>	<u>2016 Rank</u>
1. Google, Inc. (Council Bluffs)		1
2. ConAgra Frozen Foods		2
3. Bunge Corporation		3
4. Plumrose USA, Inc.		6
5. Tyson Foods, Inc.		5
6. MidAmerican Energy		4
7. City of Council Bluffs		8
8. Tetra, LLC		7
9. Regional Water		9
10. Iowa Western Community College		10

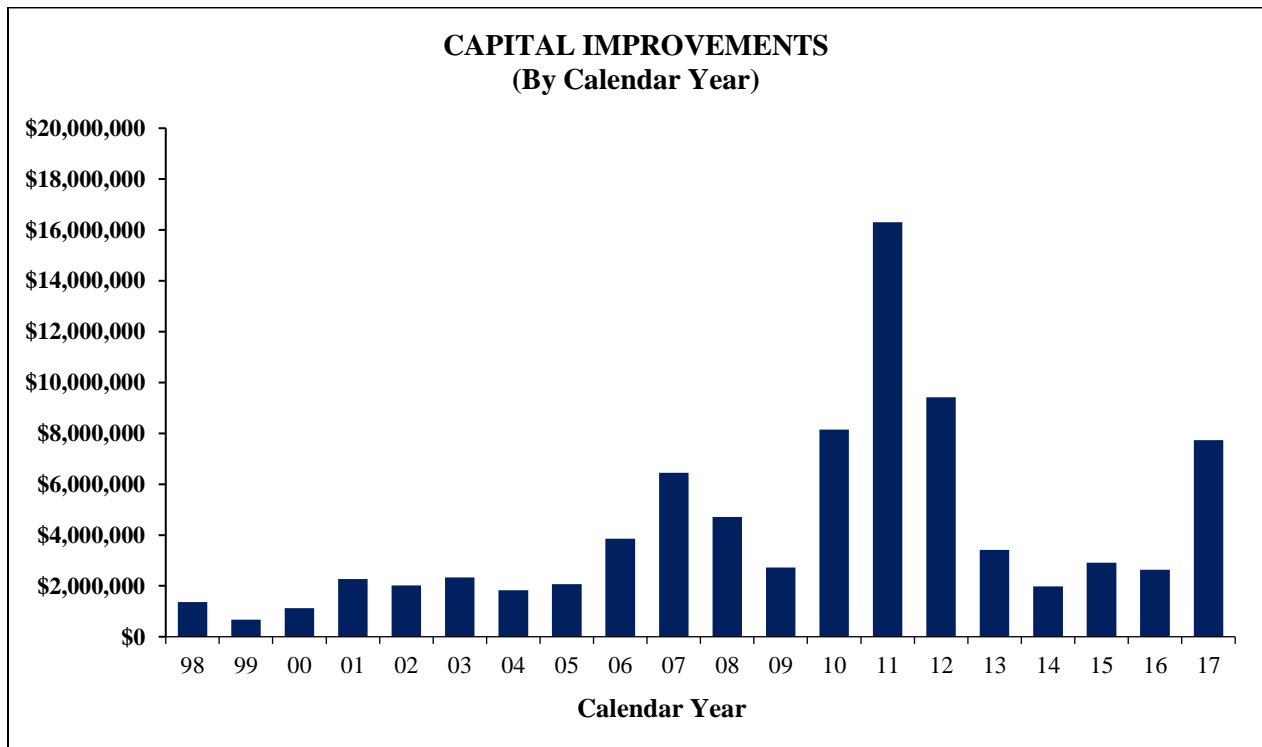
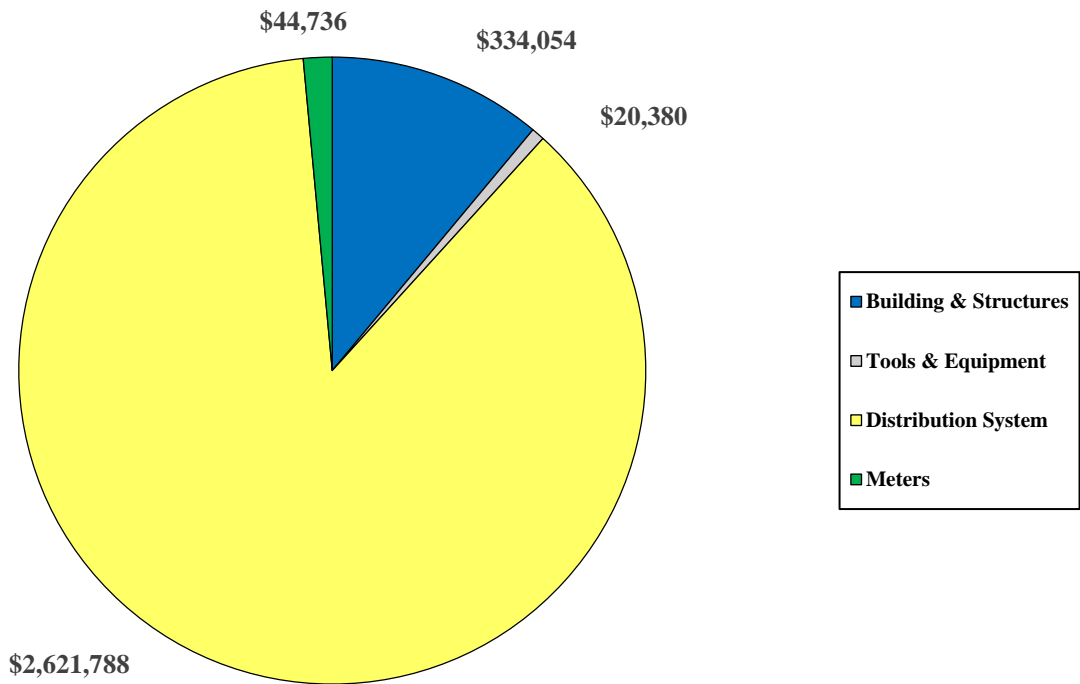
The Council Bluffs Water Works has 301.92 miles of water mains consisting of:

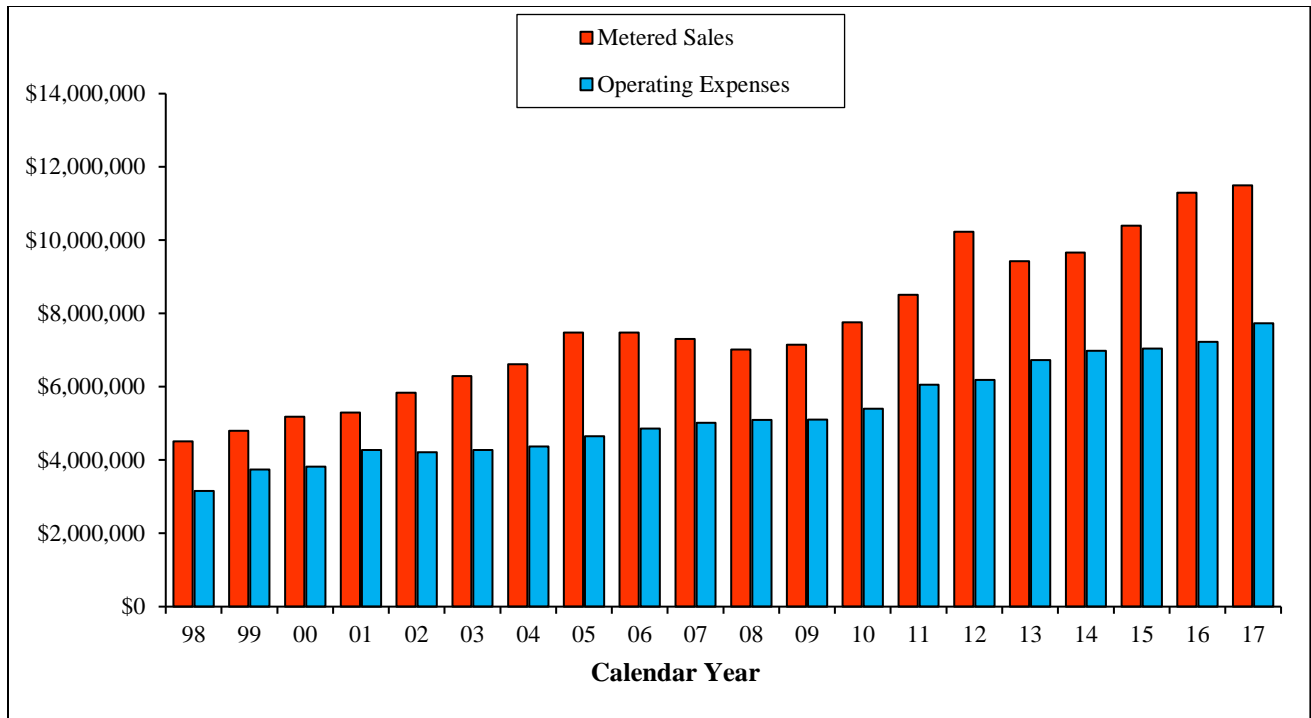
1-inch main	3,192	feet
1 ¼ -inch main	310	feet
1 ½ -inch main	138	feet
2-inch main	1,054	feet
4-inch main	44,554	feet
6-inch main	592,876	feet
8-inch main	341,752	feet
10-inch main	156,512	feet
12-inch main	231,336	feet
16-inch main	168,529	feet
20-inch main	7,723	feet
24-inch main	23,541	feet
30-inch main	13,638	feet
36-inch main	8,995	feet

Number of Hydrants: 2,971

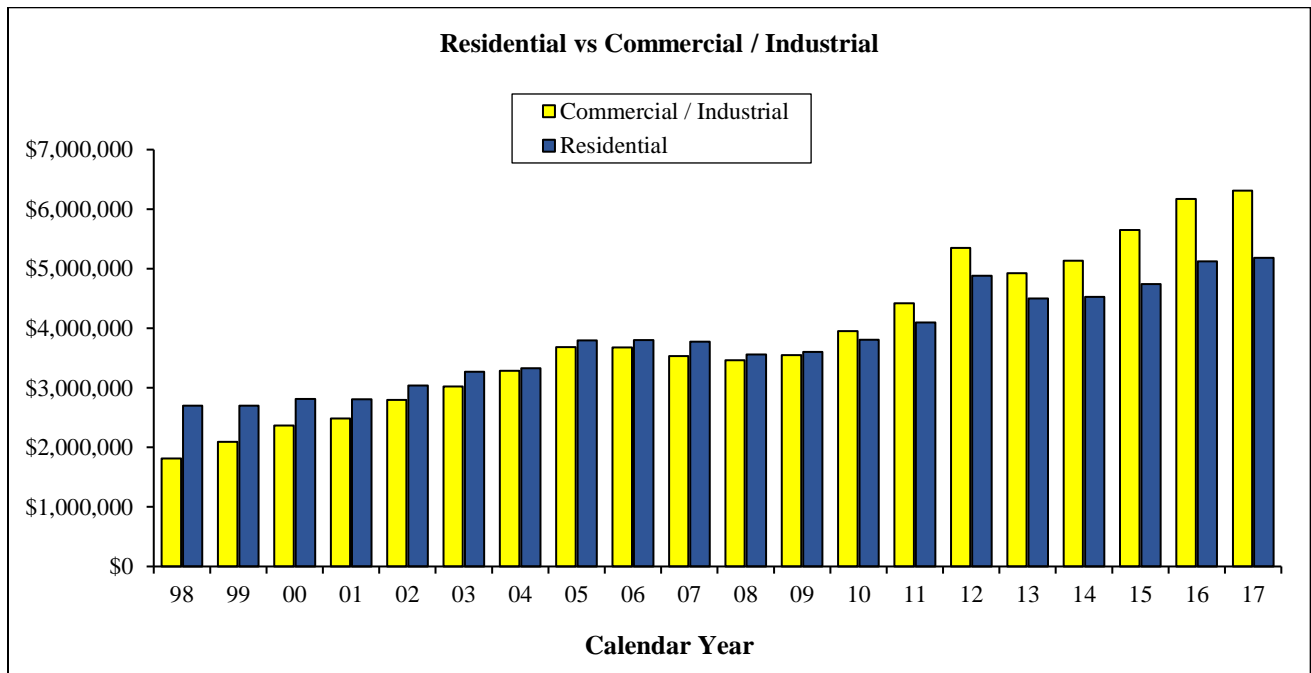
Number of Valves: 8,043

**2017 CAPITAL IMPROVEMENTS  
TOTAL \$3,020,958**





**METERED SALES vs OPERATING EXPENSES**



**WATER REVENUE**

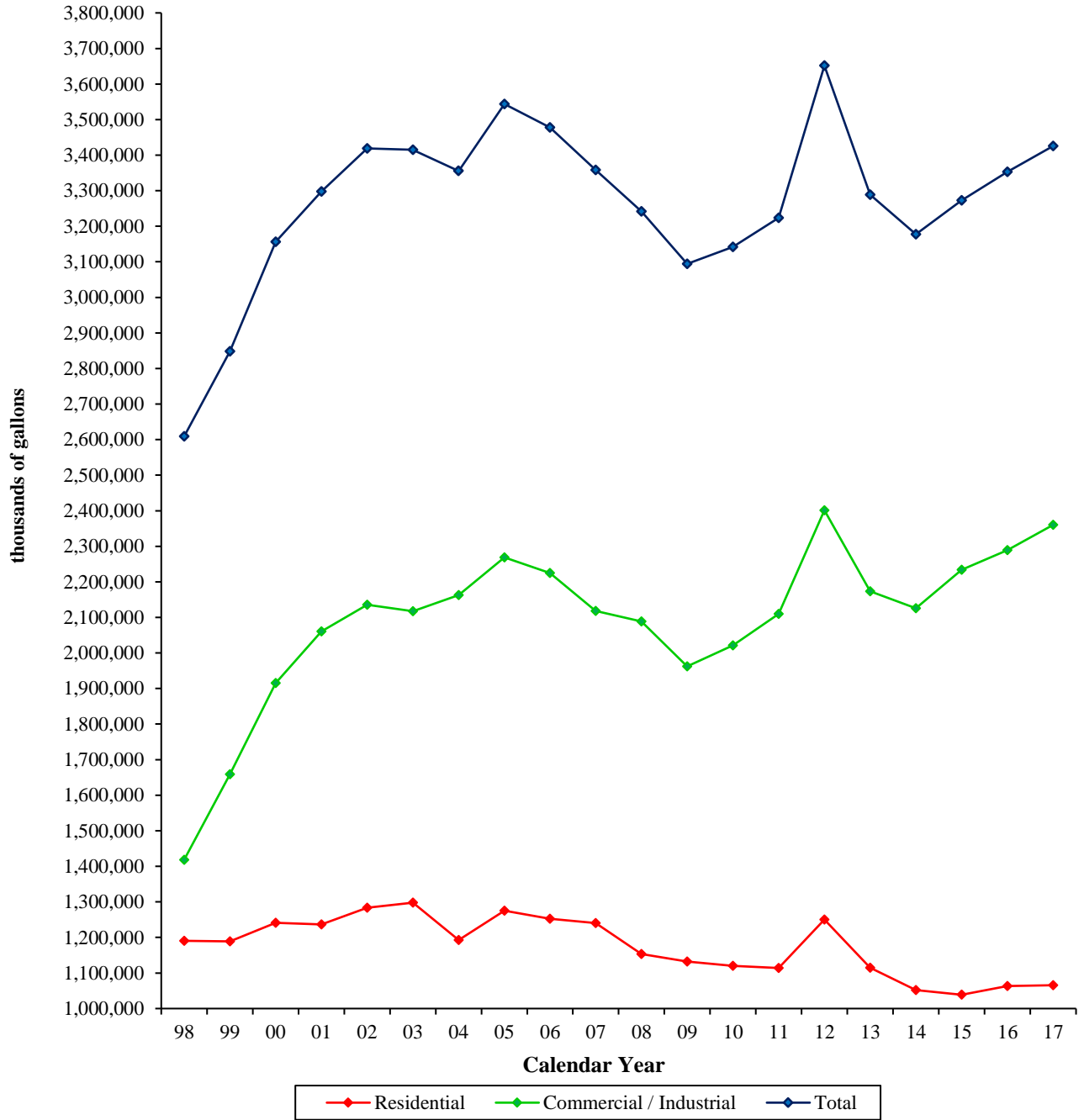
**COUNCIL BLUFFS WATER WORKS**  
**PUMPAGE & METERED CONSUMPTION**  
(1,000's Gallons)  
**2017**

<u>MONTH</u>	<u>PUMPAGE TOTAL</u>	<u>METERED CONSUMPTION TOTAL</u>	<u>CONSUMPTION COMMERCIAL &amp; INDUSTRIAL</u>	<u>RESIDENTIAL</u>
January	293,080	224,945	149,672	75,273
February	279,430	241,652	160,983	80,669
March	301,300	241,012	169,758	71,254
April	300,910	240,734	164,855	75,879
May	334,050	259,011	183,548	75,463
June	408,200	339,234	238,774	100,460
July	459,590	355,781	260,275	95,506
August	429,870	385,696	254,448	131,248
September	393,470	350,835	249,525	101,310
October	339,584	298,956	196,033	102,923
November	307,591	264,848	187,006	77,842
December	295,580	222,886	145,330	77,556
Totals 2017	4,142,655	3,425,590	2,360,207	1,065,383
Ratio		82.7%	57.0%	25.7%
Totals 2016	4,045,182	3,352,717	2,289,358	1,063,359
Ratio		82.9%	56.6%	26.3%
Totals 2007	3,984,642	3,358,641	2,118,504	1,240,137
Ratio		84.3%	53.2%	31.1%

**COUNCIL BLUFFS WATER WORKS**  
**METERED SALES (\$)**  
**2017**

<u>MONTH</u>	<u>TOTAL</u>	<u>COMMERCIAL &amp; INDUSTRIAL</u>	<u>RESIDENTIAL</u>
January	\$ 791,955	\$ 415,734	\$ 376,221
February	839,355	435,050	404,305
March	817,673	456,763	360,910
April	822,626	438,084	384,542
May	877,382	499,203	378,179
June	1,109,946	627,505	482,441
July	1,140,786	686,809	453,977
August	1,264,993	669,690	595,303
September	1,139,853	664,001	475,852
October	1,016,551	523,350	493,201
November	885,612	500,603	385,009
December	789,004	395,290	393,714
Totals 2017	\$ 11,495,736	\$ 6,312,082	\$ 5,183,654
Ratio		54.9%	45.1%
Totals 2015	\$ 11,299,929	\$ 6,174,156	\$ 5,125,773
Ratio		54.6%	45.4%
Totals 2006	\$ 7,307,800	\$ 3,535,197	\$ 3,772,603
Ratio		48.4%	51.6%

# RESIDENTIAL VERSUS COMMERCIAL / INDUSTRIAL CONSUMPTION



## ***HISTORY***

Construction of the Council Bluffs Water System began in 1881 by the American Construction Company of New York City, which had been granted a 25-year franchise by the City of Council Bluffs. Under the franchise, the American Construction Company was to construct and operate a water system. The system constructed was very inferior, and during the life of the franchise, practically no improvements or extensions were made. As a result, along with the poor service rendered by the water company, the renewal of the franchise was rejected by the voters in 1906. In 1911, the City acquired the water system through condemnation proceedings at a cost of \$510,000. On June 1, 1911, the control of the Council Bluffs Water Works came under the Board of Water Works Trustees, which had been appointed by the Mayor. Their first task was to reconstruct or replace practically the entire system. The utility remains under the control of a five-member Board of Trustees, appointed by the Mayor on alternate terms of six years each. Many physical changes have occurred within the water system itself. The system in 1911 consisted of obtaining water from the Missouri River near North 37<sup>th</sup> Street, settling in large reservoirs, disinfecting, and pumping. Disinfection was begun in 1910 which eliminated illness and deaths from typhoid. In 1952, a conventional lime softening water treatment plant, known as the Narrows was constructed at North 25<sup>th</sup> Street. The Administration Building was relocated to North 25<sup>th</sup> Street in 1974. In the ensuing thirty years many other improvements have been made including the construction of the 2,000,000 gallon Valley View Reservoir, a Distribution/Meter Department Office and Warehouse Complex, a 1,500,000 gallon Clearwell, a modern Chlorine Handling Facility, 3 Elevated Storage Tanks, two Pump Stations and one storage reservoir. In 2010 Board began construction of a new groundwater source of supply and integrated membrane water treatment plant known as Council Point, on the south side of the City. This new source of supply began serving the City in 2013.

## ***GENERAL DESCRIPTION OF SYSTEM OPERATIONS***

The Narrows Water Purification Plant's main source of water is the Missouri River. Four low service pumps are located at the intake pump station. #1 pump is rated at 12.5 million gallons per day (MGD) and is a dual drive pump (electric or gas engine). #2 pump is rated at 5.5 MGD. #3 pump is a variable speed with a maximum capacity of 9.0 MGD. #4 pump is also variable speed with a maximum capacity of 12.5 MGD. Any single pump can be run from a standby generator if commercial power fails.

The secondary source of water is the Missouri River Alluvium. Two wells at a depth of 150 feet have a capacity of 4.5 MGD each.

Traveling screens at the Intake Pump Station remove large debris before it is pumped to twin preliminary settling basins where the sand and heavy silt settle out. Polyelectrolytes are added when necessary to enhance the settling process. Well water is blended with the cold river water in the winter to minimize icing problems within the basins. Water then flows by gravity through the remaining treatment steps.

There are two independent treatment trains at the purification plant. Typically, the plant operates in a split treatment mode where lime is added to approximately 70% of the water to elevate the pH sufficiently to precipitate magnesium and calcium ions. This softened water is blended with un-softened water as needed to adjust the pH and hardness of the water. Soda Ash and Ferric Sulfate are added as required to complete the coagulation and softening process. A series of mixers and flocculators ensure a complete chemical reaction prior to the clarification basins. Solids are recycled to the mixers as a catalyst for the chemical reactions.

Water then flows to 8 gravity multi-media filters. Each filter has a rated capacity of 3.0 MGD. The filters remove any remaining particles. The filters have a granular activated carbon cap that remove dissolved organic compounds and taste and odor causing compounds by adsorption.

Chlorine is added as a disinfectant before and after the filters. Fluoride is added as a prophylaxis. The water then flows through two 1.5 million gallon baffled clearwells to ensure inactivation of microorganisms. Ammonia is then added to convert the chlorine to chloramines to stabilize the chlorine residual and control disinfection by-products.

There are four high service pumps that deliver water to the City. Two of the pumps have a capacity of 10 MGD, one is 7.5 MGD and the smallest is 6 MGD. Pumps can be run in any combination to meet demand. Typical plant discharge pressure is 90 – 100 pounds per square inch. A 500 kW and 100 kW generators provide emergency backup power to the

plant in case of commercial power failure.

The Council Point Water Purification Plant's source of water is five wells in the Missouri River alluvium to a depth of 100 feet. The groundwater is pumped to the pretreatment building where it is first aerated to oxidize iron followed by chemical addition to oxidize manganese. Insoluble iron and manganese is removed by ultrafiltration. Dissolved minerals are removed by reverse osmosis. Chlorine is added as a disinfectant. Fluoride is added as a prophylaxis. Finished water is stored in a 3.0 million gallon clearwell. There are three high service pumps that deliver water to the City, each with variable frequency drives and capable of delivering 4.0 MGD. The plant is automated and controlled by the water plant operators from the Narrows Water Purification Plant.

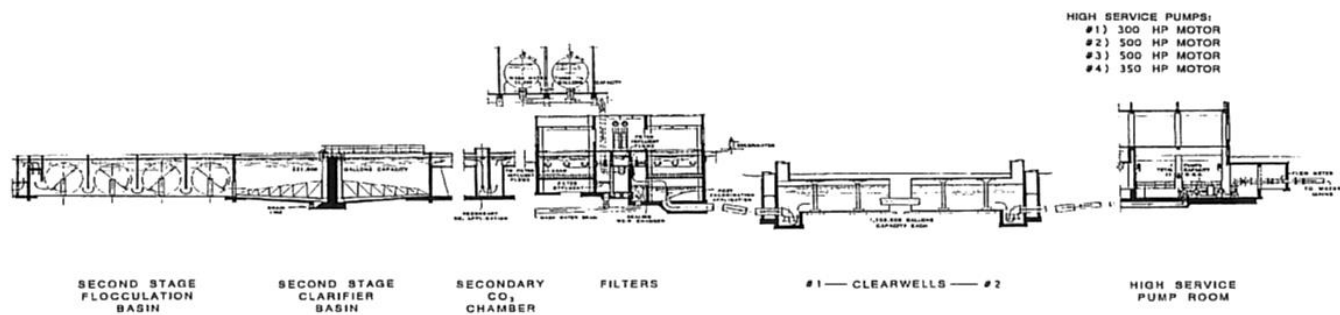
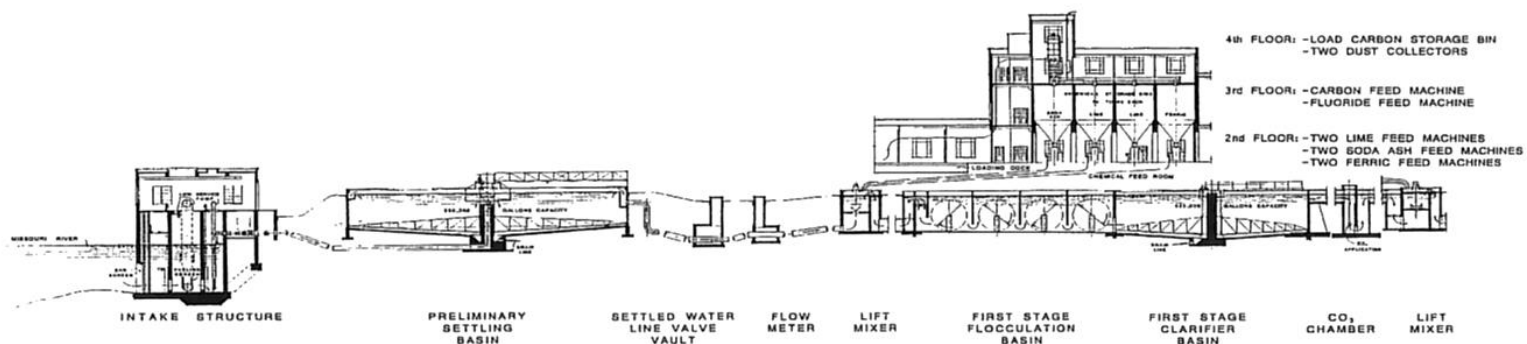
The distribution system has three pressure zones. The first zone is the flat (western and southern) sections of the city and is served by three 2 million gallon reservoirs and one 3-million gallon reservoir. Three of the reservoirs are located downtown and one is located in the southeastern part of the city.

Four booster pump stations and 4 elevated storage tanks with a combined capacity of 1.2 million gallons serve the second pressure zone (bluffs). Lincoln Pump Station has three pumps rated at 600, 750 and 750 gallons per minute (GPM), one is dual drive (electric or gas). Lincoln Pump Station delivers water to the northern section of the City and pumps to a 500,000 gallon elevated tank at Buena Vista Circle and a 200,000 gallon elevated tank at Simms Avenue. Glen Pump Station has three pumps rated at 1500, 800 and 2500 GPM, the largest being a dual drive. This booster pump station delivers to the eastern section of the city and pumps to a 200,000 gallon elevated tank at Memorial Park and a 300,000 gallon tank on Greenview Drive. The Valley View Pump Station has two pumps rated at 750 GPM and 1500 GPM. A gas fired generator provides emergency backup power. This new pump station supports the rapidly growing eastern sections of the city. Oak Street Pump Station has three pumps rated at 400, 700 and 700 GPM, one is a dual drive. This pump station supports both the northern and eastern sections of the bluffs.

A third pressure zone of the distribution system serves the eastern portions of the system. The Airport/Bent Tree pump station has three variable speed pumps each with a maximum capacity of 600 gallons per minute and pump to a 400,000 gallon elevated tank on Highway 6. A gas fired generator provides emergency backup power.

A Supervisory Control and Data Acquisition System monitors all pump station and tank operations from the Water Treatment Plant located on North 25<sup>th</sup> Street.

## WATER TREATMENT PROCESS







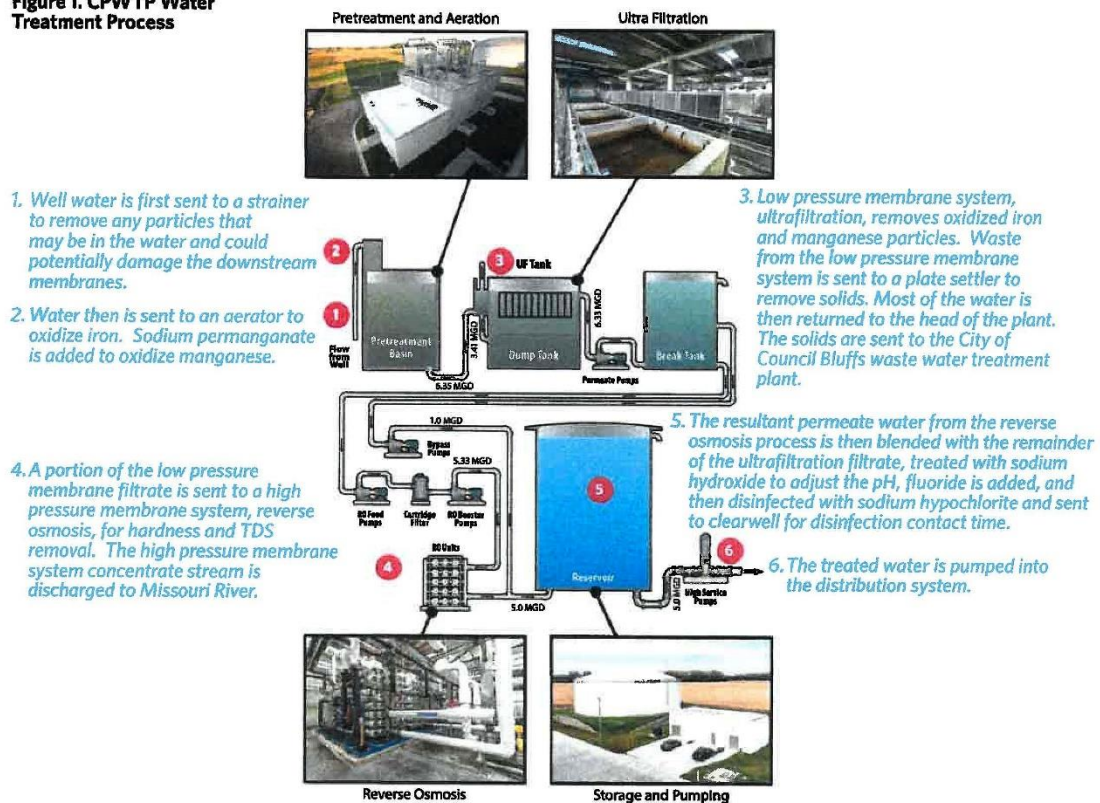
### Unique Application of Different Technology, Techniques, Materials or Equipment

The CPWTP uses a process which employs the use of semi-permeable membranes (low pressure followed by high pressure) to separate impurities from well water, as shown in Figure 1 below. **While membrane technology is not a new technology, the application of low pressure membranes followed by high pressure membranes is a unique application that is a model for other communities to follow.** This process has very limited application in the United States and is a unique combination of technology that will serve as a model for other Iowa communities.

The CPWTP includes a level of automation that allows remote operation of the facility. Every component of the facility from the raw water supply to the membrane processes and chemical systems is automated, allowing operation from the Narrows WTP through the CBWW SCADA system. The facility is also monitored from the Narrows WTP through CCTV. The processes in operation at the facility can be easily shutdown, started up, and varied, allowing a quick response to system needs. This automation has allowed CBWW to maintain efficient staffing of their treatment facilities, therefore reducing the costs to their customers.

Another unique application of technology is the **on-site chlorine generation**. Salt (very similar to table salt) is delivered to the site and stored as brine solution in large storage tanks. The brine solution is exposed to high level of electrical current in the generators to make a dilute concentration of liquid sodium hypochlorite. The concentration of the chemical is low and the amount generated can be limited to the amount consumed every day or two, so the quantities on site are smaller and the risks from gaseous or liquid chlorine to the employees and neighboring area are greatly reduced.

**Figure 1. CPWTP Water Treatment Process**





COUNCIL BLUFFS CITY WATER WORKS

FINANCIAL STATEMENTS

DECEMBER 31, 2017 AND 2016

(With Independent Auditors' Report Thereon)

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## INDEPENDENT AUDITOR'S REPORT

The Board of Trustees  
Council Bluffs City Water Works  
Council Bluffs, Iowa

### Report on the Financial Statements

We have audited the accompanying financial statements of the Council Bluffs City Water Works, Council Bluffs, Iowa (Water Works) as of and for the years ended December 31, 2017 and 2016, and the related notes to the financial statements, which collectively comprise the Council Bluffs City Water Works' basic financial statements as listed in the table of contents.

### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America, and the standards applicable to financial audits contained in *Governmental Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

## Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Council Bluffs City Water Works, as of December 31, 2017 and 2016 and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

## Other Matters

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis (pages 1 through 4), Schedule of the Utility's Proportionate Share of the Net Pension Liability (page 20) and the Schedule of the Utility's Contributions (pages 21 through 22) be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### *Other Information*

The Budgetary Comparison Schedule on page 24 has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

## Other Reporting Required by Government Auditing Standard

In accordance with *Government Auditing Standards*, we have also issued our report dated April 10, 2018 on our consideration of the Council Bluffs City Water Works internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Council Bluffs City Water Works internal control over financial reporting and compliance.

*Hamilton Associates, P.C.*

Council Bluffs, Iowa  
April 10, 2018

**Council Bluffs Water Works  
Council Bluffs, Iowa**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
Calendar Year Ending December 31, 2017**

---

Council Bluffs Water Works provides this Management's Discussion and Analysis of its financial statements. This narrative overview and analysis of the financial activities is for the calendar year ending December 31, 2017. We encourage readers to consider this information in conjunction with our financial statements, which follow.

**FINANCIAL HIGHLIGHTS**

- ◆ The Water Works' operating revenues increased 1.7% or \$209,307 from calendar year 2016 to 2017.
- ◆ The Water Works' operating expenses increased by 5.7% or \$612,744, in calendar year 2016 to 2017.
- ◆ The Water Works' net position increased 2.9% or \$1,212,613, from December 31, 2016 to December 31, 2017.

**USING THIS ANNUAL REPORT**

The annual report consists of a series of financial statements and other information, as follows:

Management's Discussion and Analysis introduces the basic financial statements and provides an analytical overview of the Water Works financial activities.

Financial Statements consist of Statements of Net Position, Statements of Revenues, Expenses, and Changes in Net Position, and Statements of Cash Flows. These provide information about the activities of the Council Bluffs Water Works as a whole and present an overall view of the Water Works finances.

Notes to Financial Statements provide additional information essential to a full understanding of the data provided in the basic financial statements.

Required Supplementary Information further explains and supports the net pension liability and IPERS contributions.

Other Information further explains and supports the financial statement with a comparison of the Water Works' budget for the year.

**Council Bluffs Water Works  
Council Bluffs, Iowa**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
Calendar Year Ending December 31, 2017**

**FINANCIAL ANALYSIS**

Statements of Net Position

The statements of net position present the assets, liabilities, and net position of the Water Works, as of the end of the calendar year. The purpose of this statement is to present a summary of the Water Works to the readers of the financial statements. The statements of net position include year-end information concerning current assets and liabilities, and net position (assets less liabilities). Readers of the financial statements are able to determine the Water Works financial position by analyzing the increases and decreases in fund equity. This statement is a good source for readers to determine how much the Water Works owes to outside vendors and creditors. The statement presents the available assets that can be used to satisfy those liabilities.

The largest portion of the Water Works' net position 89.2% is the investment in capital assets (building and structures, furniture and fixtures, tools and equipment, distribution system, meters and automotive equipment), less the related debt. The restricted portion of the net position .1% includes resources that are subject to restrictions. The remaining net position 10.7% is the unrestricted position that can be used to meet the Water Works' obligations as they come due.

Statements of Net Position December 31, 2017 and 2016		
	<u>2017</u>	<u>2016</u>
Current assets	\$ 6,883,230	\$ 7,390,434
Restricted assets	5,866,476	1,411,276
Capital assets	<u>67,746,835</u>	<u>66,846,650</u>
Total assets	<u>\$ 80,496,541</u>	<u>\$ 75,648,360</u>
Deferred outflows of resources	<u>\$ 589,635</u>	<u>\$ 538,866</u>
Current liabilities (payable from current assets)	\$ 2,775,217	\$ 2,616,552
Current liabilities (payable from restricted assets)	6,420,386	1,523,743
Revenue bonds payable	26,148,000	27,643,000
Other liabilities	<u>2,463,408</u>	<u>2,352,748</u>
Total liabilities	<u>\$ 37,807,011</u>	<u>\$ 34,136,043</u>
Deferred inflows of resources	<u>\$ 111,988</u>	<u>\$ 96,619</u>
Net investment in capital assets	\$ 38,523,835	\$ 37,697,650
Restricted	20,520	24,476
Unrestricted	<u>4,622,822</u>	<u>4,232,438</u>
Total net position	<u>\$ 43,167,177</u>	<u>\$ 41,954,564</u>

**Council Bluffs Water Works  
Council Bluffs, Iowa**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
Calendar Year Ending December 31, 2017**

Statement of Revenues and Expenses

The Statement of Revenues and Expenses reflects a negative with a decrease in the net assets at the end of the calendar year.

In calendar year 2017, operating revenues increased by \$209,307 or 1.7%, due to an increase in consumption.

A summary of revenues and expense for the years ending December 31, 2017 and 2016 is presented below:

Statements of Revenues and Expenses		
December 31, 2017 and 2016		
	<u>2017</u>	<u>2016</u>
Operating revenues		
Metered water sales	\$ 11,494,502	\$ 11,300,288
Rental	189,952	158,143
Other	806,799	823,515
Total operating revenues	\$ 12,491,253	\$ 12,281,946
Operating expenses		
Facilities and grounds	\$ 1,025,219	\$ 958,117
Inventory adjustment	4,341	(6,694)
Purification	1,905,796	1,797,906
Distribution and meter	1,376,874	1,222,682
Customer accounting	504,192	480,184
Administration and general	2,566,134	2,409,548
Pension and social security	488,609	431,675
Depreciation	3,584,913	3,549,916
Total operating expenses	\$ 11,456,078	\$ 10,843,334
Nonoperating revenues (expenses)		
Interest on investments	\$ 230,493	\$ 207,910
Interest expense	(948,795)	(992,778)
Loss on disposal of equipment	(8)	(8,050)
Nonoperating revenues, net	\$ (718,310)	\$ (792,918)
Change in net position	\$ 316,865	\$ 645,694
Total Net Position	43,167,177	41,954,564



**Council Bluffs Water Works  
Council Bluffs, Iowa**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
Calendar Year Ending December 31, 2017**

Statement of Cash Flows

The Statement of Cash Flows presents information related to cash inflows and outflows, summarized by operating, capital and related financing and investing activities. Cash provided by operating activities include metered water sales, miscellaneous water sales, penalty charges, and service charges. Cash used from capital and related financing activities includes: principal payment of revenue bonds, interest paid on revenue bonds, interest paid on consumer deposits, additions to property, plant, and equipment, and contributions-in-aid of construction. Cash used by investing activities includes interest income.

**CAPITAL ASSETS**

At December 31, 2017 the Water Works had \$124,866,657 invested in capital assets, net of accumulated depreciation of \$57,119,822. Depreciation expense totaled \$3,584,913 for calendar year 2017. More detailed information about the Water Works' capital assets is presented in Note 4 to the financial statements.

**LONG-TERM DEBT**

At December 31, 2017, the Water Works had \$27,671,000 debt outstanding. See Note 5 to the financial statements for more information.

**ECONOMIC FACTORS**

Council Bluffs Water Works continued to support development throughout the community to improve its financial position during the current calendar year.

Facilities and the distribution system operated by Water Works require constant maintenance and upkeep.

Chemical cost, electricity, maintenance of mains and services, and health insurance continue to put pressure on the Water Works resources.

Continued growth in the community requires the Water Works to invest in new infrastructures to meet the growing demands of the community.

Vulnerability and security improvement of our system will be an ongoing process.

**CONTACTING THE COUNCIL BLUFFS WATER WORKS FINANCIAL MANAGEMENT**

This financial report is designed to provide our customers, investors and creditors with a general overview of the Water Works finances and operating activities. If you have any questions or require additional information please contact the General Manager, 2000 North 25<sup>th</sup> Street, P O Box 309, Council Bluffs, Iowa 51502.

## FINANCIAL STATEMENTS

**COUNCIL BLUFFS CITY WATER WORKS**

**STATEMENTS OF NET POSITION**

December 31, 2017 and 2016

<b>ASSETS</b>	2017	2016
<b>CURRENT ASSETS</b>		
Cash (Note 2)	\$ 4,141,574	\$ 4,705,392
Inventory	846,794	883,942
Receivables:		
Consumer accounts	1,366,951	1,317,587
Unbilled revenues	<u>391,201</u>	<u>391,883</u>
Total receivables	\$ 1,758,152	\$ 1,709,470
Prepaid insurance	136,710	91,630
Restricted assets (Note 3)	<u>5,866,476</u>	<u>1,411,276</u>
Total current assets	\$ 12,749,706	\$ 8,801,710
PROPERTY, PLANT AND EQUIPMENT, NET (Note 4)	<u>67,746,835</u>	<u>66,846,650</u>
Total assets	<u>\$ 80,496,541</u>	<u>\$ 75,648,360</u>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Pension related deferred outflows (Note 9)	<u>\$ 589,635</u>	<u>\$ 538,866</u>
<b>LIABILITIES</b>		
<b>CURRENT LIABILITIES (payable from current assets):</b>		
Accounts payable	\$ 185,551	\$ 270,179
Accrued wages and payroll taxes	112,685	113,649
Accrued compensated absences	315,176	266,797
Accrued interest payable	72,385	76,492
Retainage payable	99,770	25,108
Due to City of Council Bluffs	466,650	358,327
Current portion of long term debt (Note 5)	<u>1,523,000</u>	<u>1,506,000</u>
Total current liabilities (payable from current assets)	\$ 2,775,217	\$ 2,616,552
<b>CURRENT LIABILITIES (payable from restricted assets):</b>		
Consumer deposits	\$ 795,360	\$ 764,480
Plant expansion and main extension escrow deposits	4,796,457	379,871
Accrued interest on consumer deposits	254,139	242,446
Construction costs payable	<u>574,430</u>	<u>136,946</u>
Total current liabilities (payable from restricted assets)	\$ 6,420,386	\$ 1,523,743
LONG TERM DEBT (Note 5)	<u>\$ 26,148,000</u>	<u>\$ 27,643,000</u>
<b>OTHER LIABILITIES</b>		
Net pension liability (Note 9)	<u>\$ 2,463,408</u>	<u>\$ 2,352,748</u>
Total liabilities	<u>\$ 37,807,011</u>	<u>\$ 34,136,043</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Pension related deferred inflows (Note 9)	<u>\$ 111,988</u>	<u>\$ 96,619</u>
<b>NET POSITION</b>		
Net investment in capital assets	\$ 40,075,835	\$ 37,697,650
Restricted	20,520	24,476
Unrestricted	<u>3,070,822</u>	<u>4,232,438</u>
Total net position	<u>\$ 43,167,177</u>	<u>\$ 41,954,564</u>

**See Notes to Financial Statements**

**COUNCIL BLUFFS CITY WATER WORKS**

**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**

Years Ended December 31, 2017 and 2016

	2017	2016
<b>OPERATING REVENUES</b>		
Metered water sales	\$ 11,494,502	\$ 11,300,288
Rental	189,952	158,143
Other	<u>806,799</u>	<u>823,515</u>
Total operating revenues	<u>\$ 12,491,253</u>	<u>\$ 12,281,946</u>
<b>OPERATING EXPENSES</b>		
Facilities and grounds	\$ 1,025,219	\$ 958,117
Inventory adjustment	4,341	(6,694)
Purification	1,905,796	1,797,906
Distribution and meter	1,376,874	1,222,682
Customer accounting	504,192	480,184
Administration and general	2,566,134	2,409,548
Pension and social security	488,609	431,675
Depreciation	<u>3,584,913</u>	<u>3,549,916</u>
Total operating expenses	<u>\$ 11,456,078</u>	<u>\$ 10,843,334</u>
Operating income	<u>\$ 1,035,175</u>	<u>\$ 1,438,612</u>
<b>NONOPERATING REVENUES (EXPENSES)</b>		
Interest on investments	\$ 230,493	\$ 207,910
Interest expense	(948,795)	(992,778)
Loss on disposal of equipment	<u>(8)</u>	<u>(8,050)</u>
Nonoperating revenues, net	<u>\$ (718,310)</u>	<u>\$ (792,918)</u>
Change in net position	<u>\$ 316,865</u>	<u>\$ 645,694</u>
<b>NET POSITION - BEGINNING AS RESTATED (Note 10)</b>	<u>\$ 41,954,564</u>	<u>\$ 40,641,135</u>
Contributions in aid of construction (Note 6)	<u>895,748</u>	<u>667,735</u>
<b>NET POSITION - END OF YEAR</b>	<u>\$ 43,167,177</u>	<u>\$ 41,954,564</u>

**See Notes to Financial Statements**

**COUNCIL BLUFFS CITY WATER WORKS**

**STATEMENTS OF CASH FLOWS**  
Years Ended December 31, 2017 and 2016

	2017	2016
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Cash received from customers and users	\$ 11,445,820	\$ 11,183,595
Cash received from other revenues	996,751	981,658
Cash paid to suppliers for goods and services	(4,520,452)	(4,357,956)
Cash paid to employees and on their behalf	(3,289,718)	(3,141,121)
(Payments) receipts for City sewer services net of collections	108,323	103,743
Net cash provided by operating activities:	<u>\$ 4,740,724</u>	<u>\$ 4,769,919</u>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Principal payment of long term debt	\$ (1,478,000)	\$ (1,434,000)
Interest paid on long term debt	(914,809)	(959,644)
Interest paid on consumer deposits	(26,400)	(28,075)
Additions to property, plant, and equipment	(3,972,960)	(3,208,994)
Plant expansion and main extension escrow deposits	4,416,586	424,700
Contributions-in-aid of construction	895,748	667,735
Net cash provided by (used in) capital and related financing activities	<u>\$ (1,079,835)</u>	<u>\$ (4,538,278)</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Interest received on investments	230,493	207,910
Net cash provided by investing activities	<u>\$ 230,493</u>	<u>\$ 207,910</u>
<b>NET INCREASE (DECREASE) IN CASH</b>	<b>\$ 3,891,382</b>	<b>\$ 439,551</b>
<b>CASH - BEGINNING OF YEAR</b>	<u>6,116,668</u>	<u>5,677,117</u>
<b>CASH - END OF YEAR</b>	<u><u>\$ 10,008,050</u></u>	<u><u>\$ 6,116,668</u></u>
<b>RECONCILIATION TO BALANCE SHEETS</b>		
Cash	\$ 4,141,574	\$ 4,705,392
Cash included in restricted assets	5,866,476	1,411,276
	<u>\$ 10,008,050</u>	<u>\$ 6,116,668</u>
<b>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</b>		
Operating income (loss)	\$ 1,035,175	\$ 1,438,612
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization	3,584,913	3,549,916
Changes in assets and liabilities:		
(Increase) Decrease in inventory	37,148	(78,406)
(Increase) Decrease in receivables	(48,682)	(116,693)
(Increase) Decrease in prepaid insurance	(45,080)	(8,573)
(Increase) Decrease in deferred outflows of resources	(50,769)	(307,048)
Increase (Decrease) in accounts payable	(84,628)	(193,620)
Increase (Decrease) in salaries payable	(964)	14,233
Increase (Decrease) in accrued compensated absences	48,379	7,460
Increase (Decrease) in Due to City of Council Bluffs	108,323	103,743
Increase (Decrease) in net pension liability	110,660	481,315
Increase (Decrease) in consumer deposits	30,880	27,680
Increase (Decrease) in deferred inflows of resources	15,369	(148,700)
Net cash provided by operating activities	<u>\$ 4,740,724</u>	<u>\$ 4,769,919</u>

**See Notes to Financial Statements**

## COUNCIL BLUFFS CITY WATER WORKS

### NOTES TO FINANCIAL STATEMENTS Years Ended December 31, 2017 and 2016

#### 1. Summary of Significant Accounting Policies

The Council Bluffs City Water Works ("Water Works") is a related organization to the City of Council Bluffs, Iowa ("City") and is not included in the City's financial statements. The Mayor, with City Council concurrence, appoints individuals to the Water Works' Board of Trustees. The Water Works' Board of Trustees maintains oversight responsibility and, therefore, is responsible for selection of management personnel and all financial matters. The authority to adopt the annual budget, to incur debt and to fix rates and charges is vested in the Board of Trustees. The Water Works is exempt from state and Federal income taxes. The Water Works' financial statements are prepared on the accrual basis.

##### Reporting Entity:

For financial reporting purposes, the Water Works has included all funds, organizations, agencies, boards, commissions and authorities. The Water Works has also considered all potential component units for which it is financially accountable and other organizations for which the nature and significance of their relationship with the Water Works are such that exclusion would cause the Water Works' financial statements to be misleading or incomplete. The Governmental Accounting Standards Board has set forth criteria to be considered in determining financial accountability. These criteria include appointing a voting majority of an organization's governing body and 1) the ability of the Water Works to impose its will on that organization or 2) the potential for the organization to provide specific benefits to or impose specific financial burdens on the Water Works. The Water Works has no component units which meet the Governmental Accounting Standards Board criteria.

##### Basis of Presentation:

The accounts of the Water Works are organized as an Enterprise Fund. Enterprise Funds are used to account for operations (a) financed and operated in a manner similar to private business enterprises, where the intent of the governing body is the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges or (b) where the governing body has decided periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability or other purposes.

The Statement of Net Position presents the Water Works assets and liabilities, with the difference reported as net position. Net position is reported in the following categories:

*Net investment in capital assets* – Consists of capital assets, net of accumulated depreciation/amortization and reduced by outstanding balances for bonds, notes and other debt attributable to the acquisition, construction or improvement of those assets.

*Restricted* – Use of net position is externally imposed.

*Unrestricted* – The portion of net position that is not in restricted or net of investment in capital assets.

## COUNCIL BLUFFS CITY WATER WORKS

### NOTES TO FINANCIAL STATEMENTS

Years Ended December 31, 2017 and 2016

#### 1. Summary of Significant Accounting Policies - Continued

##### Measurement Focus and Basis of Accounting:

The financial statements are reported using the economic resources measurement focus and accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider are met.

Water Works distinguishes operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the Water Works' principal ongoing operations. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

##### Use of estimates:

In preparing the accompanying financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and revenues and expenses during the reporting period. Actual results could differ from those estimates.

##### Cash and Cash Equivalents:

For purposes of the statements of cash flows, the Water Works considers all highly liquid instruments with a maturity date of three months or less when purchased to be cash equivalents.

##### Consumer Accounts Receivable:

The consumer accounts receivable balance includes an assessment for sewer fees, which the Water Works bills on behalf of the City. A corresponding liability represents the amount of consumer accounts receivable that will be remitted to the City upon collection.

##### Revenues:

Metered water sales include amounts billed to customers on a monthly and bimonthly cycle basis and unbilled amounts based on estimated usage from the latest meter reading to the end of the accounting period.

##### Valuation of Inventories:

Inventories are valued at the lower of cost (average cost method) or market.

##### Contributions-in-Aid of Construction and Contributed Capital:

Contributions of cash by governments, customers or developers are maintained by the Water Works as restricted assets and restricted liabilities until expended. When expended the contributor's costs of construction are recorded as property, plant and equipment and contributed capital. Further, a contribution may be in the form of a completed project in which the contributor's costs of construction is recorded directly into the property, plant and equipment and contributed capital accounts. Depreciation expense recognized on these assets is charged to contributed capital.

## COUNCIL BLUFFS CITY WATER WORKS

### NOTES TO FINANCIAL STATEMENTS

Years Ended December 31, 2017 and 2016

#### 1. Summary of Significant Accounting Policies - Continued

##### Property, Plant and Equipment:

Property, plant and equipment are stated at cost. Depreciation is computed using the straight-line method based on estimated useful lives.

Maintenance and repair of property, plant and equipment are charged to operations and major improvements are capitalized. Upon retirement, sale or other disposition of property, plant and equipment, the cost and accumulated depreciation are eliminated from the accounts and gain or loss is included in operations.

##### Deferred Outflows of Resources:

Deferred outflows of resources represent a consumption of net position that applies to a future period(s) and will not be recognized as an outflow of resources (expense/expenditure) until then. Deferred outflows of resources consist of unrecognized items not yet charged to pension expense and contributions from the employer after the measurement date but before the end of the employer's reporting period.

##### Accrued Compensated Absences:

Accrued compensated absences represent vacation time, which has been earned by employees in the current year to be used in subsequent years. Sick leave does not vest and, therefore, is not accrued.

##### Pensions:

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Iowa Public Employees' Retirement System (IPERS) and additions to/deductions from IPERS' fiduciary net position have been determined on the same basis as they are reported by IPERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

##### Deferred Inflows of Resources:

Deferred inflows of resources represent an acquisition of net position that applies to a future period(s) and will not be recognized as an inflow of resources (revenue) until that time. Although certain revenues are measurable, they are not available. Available means collected within the current year or expected to be collected soon enough thereafter to be used to pay liabilities of the current year. Deferred inflows of resources in the financial statements represent the amount of assets that have been recognized, but the related revenue has not been recognized since the assets are not collected within the current year or expected to be collected soon enough thereafter to be used to pay liabilities of the current year. Deferred inflows of resources represents the difference between projected and actual earnings on pension plan investments.

##### Subsequent Events:

Subsequent events have been evaluated through April 10, 2018, which is the date the financial statements were available to be issued.



## COUNCIL BLUFFS CITY WATER WORKS

### NOTES TO FINANCIAL STATEMENTS Years Ended December 31, 2017 and 2016

#### 2. Cash and Short-Term Investments

Listed below is a summary of the deposit and investment portfolios that comprise cash and investments on the December 31, 2017 balance sheet including restricted cash and cash equivalents and investments:

##### Deposits:

At December 31, 2017, deposits consisted of demand deposits and certificates of deposits and had the following balances:

Book Balance	\$ 10,006,250
Bank Balance	\$ 10,330,799

Of the total deposits, \$250,000 was covered by federal depository insurance and \$10,080,799 was covered by pledged securities that are being held in the pledging bank's trust department in the Board's name in the form of a joint safekeeping receipt.

#### 3. Restricted Assets

Restricted assets represent money set aside for payment of bonds, proceeds from bond issues to be used for capital improvements, or contributions of cash by governments, customers, or developers for costs of construction. These contributions are reflected as restricted assets until expended. Details of the accounts comprising restricted assets as of December 31, 2017 and 2016 are as follows:

	<u>2017</u>	<u>2016</u>
Consumer deposit fund cash	\$ 1,066,776	\$ 1,021,048
Plant expansion deposit	4,709,263	-
Main extension deposit	<u>90,437</u>	<u>390,228</u>
	<u>\$ 5,866,476</u>	<u>\$ 1,411,276</u>

**COUNCIL BLUFFS CITY WATER WORKS**

**NOTES TO FINANCIAL STATEMENTS**  
Years Ended December 31, 2017 and 2016

**4. Property, Plant and Equipment**

Property, plant and equipment at December 31, 2017 and 2016 consisted of the following:

<u>Description</u>	<u>Useful Life in</u> <u>Years</u>	<u>2017</u>	<u>2016</u>
Land	-	\$ 3,500,307	\$ 3,500,307
Building and Structures	20 - 50	36,066,830	36,008,429
Water Distribution System	20 - 75	59,331,453	56,988,133
Meters	25 - 40	1,871,591	1,807,671
Tools and Equipment	3 - 20	18,672,653	18,624,040
Automobiles and Trucks	5	1,454,396	1,490,611
Office Equipment	15	104,985	104,985
Work in Progress	-	3,864,442	1,954,801
		<u>\$ 124,866,657</u>	<u>\$ 120,478,977</u>
Less Accumulated Depreciation		<u>(57,119,822)</u>	<u>(53,632,327)</u>
		<u>\$ 67,746,835</u>	<u>\$ 66,846,650</u>

**5. Revenue Bonds**

In 2010, the Water Works executed the final \$25 million of its \$35.353 million Water Revenue Bonds for construction of a second water treatment facility. The Water Revenue Bonds bear interest at 3.00% due in 2040. The Iowa Finance Authority also charges an annual service fee of 0.25%. As of December 31, 2013 the Water Works had drawn down the \$35,353,000.

In 2015, the Water Works issued Water Revenue Bonds in the amount of \$1,200,000 for the purchase of land adjacent to their treatment plant to protect existing wells from potential contamination by farming practices and industries wanting to locate on adjacent property. The bonds are non-interest bearing, and are due in 2034. The Iowa Finance Authority charges an annual service fee of 0.25%.

All of the bonds require that the Water Works produce and maintain net revenues at a level not less than 110% of the amount of principal and interest on the Revenue Bond falling due in the same year. The Water Works was in compliance with this requirement for the years ended December 31, 2017 and 2016

**COUNCIL BLUFFS CITY WATER WORKS**

**NOTES TO FINANCIAL STATEMENTS**  
Years Ended December 31, 2017 and 2016

**5. Revenue Bonds - Continued**

Principal and interest requirements to maturity on revenue bonds outstanding at December 31, 2017 are as follows:

Years ended December 31,	Principal	Interest	Total Requirements
2018	\$ 1,523,000	\$ 801,760	\$ 2,324,760
2019	1,572,000	755,520	2,327,520
2020	1,620,000	710,130	2,330,130
2021	1,672,000	663,300	2,335,300
2022	1,725,000	614,910	2,339,910
2023-2027	9,472,000	2,292,000	11,764,000
2028-2032	8,251,000	845,160	9,096,160
2033-2037	1,141,000	197,910	1,338,910
2038-2040	695,000	42,150	737,150
	<u>\$ 27,671,000</u>	<u>\$ 6,922,840</u>	<u>\$ 34,593,840</u>

**6. Contributions-in-Aid of Construction and Contributed Capital**

The following is a schedule of contributions of cash by governments and customers or developers:

	Other Governments	Customers and Developers	Total
Balances at January 1, 2016	\$ 985,544	\$ 5,454,843	\$ 6,440,387
Contributions-in-aid of construction	520,794	146,941	667,735
Transfers – Depreciation of contributed property, plant and equipment	<u>(157,632)</u>	<u>(611,594)</u>	<u>(769,226)</u>
Balances at December 31, 2016	\$ 1,348,706	\$ 4,990,190	\$ 6,338,896
Contributions-in-aid of construction	614,143	281,605	895,748
Transfers – Depreciation of contributed property, plant and equipment	<u>(181,341)</u>	<u>(604,170)</u>	<u>(785,511)</u>
Balances at December 31, 2017	<u>\$ 1,781,508</u>	<u>\$ 4,667,625</u>	<u>\$ 6,449,133</u>

## COUNCIL BLUFFS CITY WATER WORKS

### NOTES TO FINANCIAL STATEMENTS

Years Ended December 31, 2017 and 2016

#### 7. Contingencies

The Iowa Department of Natural Resources issued a NPDES Permit. The Water Works appealed the terms thereunder to an Administrative Law Judge with the Iowa Department of Inspections and Appeals. The matter involves suspended solids discharge to the Missouri River and, thus, monetary loss was not an issue. The Order dismissing this matter was filed on January 21, 2016.

In November of 2017, companies under contract with the City of Council Bluffs damaged a water main during a boring operation. This resulted in costs to Water Works of \$41,441 to repair the damage. A claim has since been filed with the companies' insurance, and as of April 10, 2018, negotiations for repayment of this amount continue.

#### 8. Risk Management

The Water Works is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Water Works carries commercial insurance for all risks of loss, including errors and omissions, destruction of assets and natural disasters. Settled claims resulting from these risks have not exceeded commercial insurance coverage in any of the past three fiscal years.

The Water Works participates in a partially self-funding benefit plan for its employees' health insurance. The plan is administered by a third-party, which estimates The Water Works maximum annual exposure to be \$455,100. The Water Works contributes funds monthly to a separate bank account to supplement the employee's deductible. The balance in this account as of December 31, 2017 and 2016 was \$111,226 and \$66,343, respectively.

#### 9. Pension Plan

##### Plan Description:

IPERS membership is mandatory for employees of the Water Works, except for those covered by another retirement system. Employees of the Water Works are provided with pensions through a cost-sharing multiple employer defined benefit pension plan administered by Iowa Public Employees' Retirement System (IPERS). IPERS issues a stand-alone financial report which is available to the public by mail at 7401 Register Drive P.O. Box 9117, Des Moines, Iowa 50306-9117 or at [www.ipers.org](http://www.ipers.org).

IPERS benefits are established under Iowa Code chapter 97B and the administrative rules thereunder. Chapter 97B and the administrative rules are the official plan documents. The following brief description is provided for general informational purposes only. Refer to the plan documents for more information

## COUNCIL BLUFFS CITY WATER WORKS

### NOTES TO FINANCIAL STATEMENTS Years Ended December 31, 2017 and 2016

#### 9. Pension Plan – Continued

##### Pension Benefits:

A regular member may retire at normal retirement age and receive monthly benefits without an early-retirement reduction. Normal retirement age is age 65, anytime after reaching age 62 with 20 or more years of covered employment, or when the member's years of service plus the member's age at the last birthday equals or exceeds 88, whichever comes first. (These qualifications must be met on the member's first month of entitlement to benefits.) Members cannot begin receiving retirement benefits before age 55. The formula used to calculate a Regular member's monthly IPERS benefit includes:

- A multiplier (based on years of service).
- The member's highest five-year average salary. (For members with service before June 30, 2012, the highest three-year average salary as of that date will be used if it is greater than the highest five-year average salary.)

If a member retires before normal retirement age, the member's monthly retirement benefit will be permanently reduced by an early-retirement reduction. The early-retirement reduction is calculated differently for service earned before and after July 1, 2012. For service earned before July 1, 2012, the reduction is 0.25 percent for each month that the member receives benefits before the member's earliest normal retirement age. For service earned starting July 1, 2012, the reduction is 0.50 percent for each month that the member receives benefits before age 65.

Generally, once a member selects a benefit option, a monthly benefit is calculated and remains the same for the rest of the member's lifetime. However, to combat the effects of inflation, retirees who began receiving benefits prior to July 1990 receive a guaranteed dividend with their regular November benefit payments.

##### Disability and Death Benefits:

A vested member who is awarded federal Social Security disability or Railroad Retirement disability benefits is eligible to claim IPERS benefits regardless of age. Disability benefits are not reduced for early retirement. If a member dies before retirement, the member's beneficiary will receive a lifetime annuity or a lump-sum payment equal to the present actuarial value of the member's accrued benefit or calculated with a set formula, whichever is greater. When a member dies after retirement, death benefits depend on the benefit option the member selected at retirement.

##### Contributions:

Contribution rates are established by IPERS following the annual actuarial valuation which applies IPERS' Contribution Rate Funding Policy and Actuarial Amortization Method. State statute limits the amount rates can increase or decrease each year to 1 percentage point. IPERS Contribution Rate Funding Policy requires the actuarial contribution rate be determined using the "entry age normal" actuarial cost method and the actuarial assumptions and methods approved by the IPERS Investment Board. The actuarial contribution rate covers normal cost plus the unfunded actuarial liability payment based on a 30-year amortization period. The payment to amortize the unfunded actuarial liability is determined as a level percentage of payroll based on the Actuarial Amortization Method adopted by the Investment Board.

**COUNCIL BLUFFS CITY WATER WORKS**

**NOTES TO FINANCIAL STATEMENTS**  
Years Ended December 31, 2017 and 2016

**9. Pension Plan – Continued**

Contributions – Continued:

In calendar years 2017 and 2016, pursuant to the required rate, Regular members contributed 5.95 percent of pay and the Water Works contributed 8.93 percent for a total rate of 14.88 percent.

The Water Works' total contributions to IPERS for the year ended December 31, 2017 and 2016 were \$248,961 and \$242,913, respectively.

Net Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions:

At December 31, 2017 and 2016, the Water Works reported a liability of \$2,463,408 and \$2,352,748, respectively, for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2017 and June 30, 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Water Works' proportion of the net pension liability was based on the Water Works' share of contributions to the pension plan relative to the contributions of all IPERS participating employers. At June 30, 2017, the Water Works' collective proportion was .0369811 percent which was a decrease of .0004037 percent from its proportion measured as of June 30, 2016. At June 30, 2016, the Water Works' collective proportion was .0373848 percent which was a decrease of .000495 percent from its proportion measured as of June 30, 2015.

For the year ended December 31, 2017 and 2016, the Water Works recognized pension expense of \$324,143 and \$269,663, respectively. The Water Works reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources at December 31:

	2017		2016	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 22,616	\$ 21,344	\$ 20,794	\$ 28,079
Changes of assumptions	428,027	-	35,896	-
Net difference between projected and actual earnings on pension plan investments	-	25,729	335,192	-
Changes in proportion and differences between Water Works contributions and proportionate share of contributions	14,163	64,915	24,607	68,540
Water Works' contributions subsequent to the measurement date	124,829	-	122,377	-
	<u>\$ 589,635</u>	<u>\$ 111,988</u>	<u>\$ 538,866</u>	<u>\$ 96,619</u>

**COUNCIL BLUFFS CITY WATER WORKS**

**NOTES TO FINANCIAL STATEMENTS**  
Years Ended December 31, 2017 and 2016

**9. Pension Plan – Continued**

\$124,829 reported as deferred outflows of resources related to pensions resulting from the Water Works contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended December 31, 2018. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions as of December 31, 2017, will be recognized in pension expense as follows:

	Year Ended December 31,	
	2018	\$ 45,077
	2019	167,849
	2020	103,088
	2021	8,881
	2022	<u>27,923</u>
	Total	<u>\$ 352,818</u>

There were no non-employer contributing entities at IPERS.

Actuarial Assumptions:

The total pension liability in the June 30, 2017 and June 30, 2016 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurement:

	2017
Rate of inflation (effective June 30, 2017)	2.60 percent per annum
Rates of salary increase (effective June 30, 2017)	3.25 to 16.25 percent, average, including inflation Rates vary by membership group.
Long-term investment rate of return (effective June 30, 2017)	7.00 percent, compounded annually, net of investment expense, including inflation.
Wage growth (effective June 30, 2017)	3.25 percent per annum based on 2.60 percent inflation and .65 percent real wage inflation.
	2016
Rate of inflation (effective June 30, 2014)	3.00 percent per annum
Rates of salary increase (effective June 30, 2010)	4.00 to 17.00 percent, average, including inflation Rates vary by membership group.
Long-term investment rate of return (effective June 30, 1996)	7.50 percent, compounded annually, net of investment expense, including inflation.
Wage growth (effective June 30, 1990)	4.00 percent per annum based on 3.00 percent inflation and 1.00 percent real wage inflation.

**COUNCIL BLUFFS CITY WATER WORKS**

**NOTES TO FINANCIAL STATEMENTS**

Years Ended December 31, 2017 and 2016

**9. Pension Plan – Continued**

The actuarial assumptions used in the June 30, 2017 and June 30, 2016 valuation were based on the results of actuarial experience studies with dates corresponding to those listed above.

Mortality rates were based on the RP-2000 Mortality Table for Males or Females, as appropriate, with adjustments for mortality improvements based on Scale AA.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	2017		2016	
	Asset Allocation	Long-Term Expected Real Rate of	Asset Allocation	Long-Term Expected Real Rate of
Domestic Equity	24%	6.25%	24%	5.85%
International Equity	16	6.71	16	6.32
Core-plus fixed income	27	2.25	28	1.90
Public Credit	3.5	3.46	5	1.36
Public real assets	7	3.27	2	6.42
Cash	1	(0.31)	1	(0.26)
Private equity	11	11.15	11	10.31
Private real assets	7.5	4.18	8	3.87
Private credit	3	4.25	5	4.48
Total	<u>100%</u>		<u>100%</u>	

Discount Rate:

The discount rate used to measure the total pension liability was 7 percent and 7.5 percent for 2017 and 2016, respectively. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the contractually required rate and that contributions from the Water Works will be made at contractually required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.



**COUNCIL BLUFFS CITY WATER WORKS**

**NOTES TO FINANCIAL STATEMENTS**  
Years Ended December 31, 2017 and 2016

**9. Pension Plan – Continued**

Sensitivity of the Water Works' Proportionate Share of the Net Pension Liability to Changes in the Discount Rate:

The following presents the Water Works' proportionate share of the net pension liability recorded at December 31, 2017 using the discount rate of 7.0 percent, as well as what the Water Works' proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.0 percent) or 1-percentage-point higher (8.0 percent) than the current rate.

	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)
Water Works' proportionate share of the net pension liability - 2017	\$ 4,058,709	\$ 2,463,408	\$ 1,123,050

The following presents the Water Works' proportionate share of the net pension liability recorded at December 31, 2016 using the discount rate of 7.5 percent, as well as what the Water Works' proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.5 percent) or 1-percentage-point higher (8.5 percent) than the current rate.

	1% Decrease (6.5%)	Discount Rate (7.5%)	1% Increase (8.5%)
Water Works' proportionate share of the net pension liability - 2016	\$ 3,806,424	\$ 2,352,748	\$ 1,125,822

Pension Plan Fiduciary Net Position:

Detailed information about the pension plan's fiduciary net position is available in the separately issued IPERS financial report which is available on IPERS' website at [www.ipers.org](http://www.ipers.org).

Payables to the Pension Plan:

At December 31, 2017, the Water Works reported payables to the defined benefit pension plan of \$9,363 for legally required employer contributions and \$6,249 for legally required employee contributions which had been withheld from employee wages but not yet remitted to IPERS. At December 31, 2016, the Water Works reported payables to the defined benefit pension plan of \$9,442 for legally required employer contributions and \$6,301 for legally required employee contributions which had been withheld from employee wages but not yet remitted to IPERS.

REQUIRED SUPPLEMENTARY INFORMATION

**COUNCIL BLUFFS CITY WATER WORKS**

**SCHEDULE OF THE WATER WORKS' PROPORTIONATE SHARE OF THE NET PENSION LIABILITY**  
 Iowa Public Employee's Retirement System  
 Last Year\*, ended June 30

	<u>2017</u>	<u>2016</u>	<u>2015</u>
Water Works' proportion of the net pension liability (asset)	0.0369811%	0.0373848%	0.0405283%
Water Works' proportionate share of the net pension liability	2,463,408	2,352,748	1,607,315
Water Works' covered-employee payroll	2,760,458	2,682,875	2,595,093
Water Works' proportionate share of the net pension liability as a percentage of its covered-employee payroll	89.24%	87.70%	61.94%
Plan fiduciary net position as a percentage of the total pension liability	82.21%	81.82%	87.61%

\* The amounts presented for each year were determined as of June 30.

**See accompanying independent auditor's report**

**Note:** GASB Statement No.68 requires ten years of information to be presented in this table. However, until a full 10-year trend is compiled, the Water Works will present information for those years for which information is available.

**COUNCIL BLUFFS CITY WATER WORKS**

**SCHEDULE OF WATER WORKS' CONTRIBUTIONS**

Iowa Public Employee's Retirement System  
Last Ten Calendar Years, ending December 31  
(In Thousands)

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Statutorily required contributions	\$ 249	\$ 243	\$ 235	\$ 234
Contributions in relation to the statutorily required contribution	<u>(249)</u>	<u>(243)</u>	<u>(235)</u>	<u>(234)</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Water Works' covered-employee payroll	\$ 2,788	\$ 2,720	\$ 2,628	\$ 2,620
Contributions as a percentage of covered-employee payroll	8.93%	8.93%	8.94%	8.93%

**See accompanying independent auditor's report**

**COUNCIL BLUFFS CITY WATER WORKS**

**SCHEDULE OF WATER WORKS' CONTRIBUTIONS**

Iowa Public Employee's Retirement System  
Last Ten Calendar Years, ending December 31  
(In Thousands)

<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>
\$ 228	\$ 204	\$ 181	\$ 155	\$ 146	\$ 142
<u>(228)</u>	<u>(204)</u>	<u>(181)</u>	<u>(155)</u>	<u>(146)</u>	<u>(142)</u>
<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
\$ 2,594	\$ 2,434	\$ 2,409	\$ 2,264	\$ 2,246	\$ 2,288
8.79%	8.38%	7.51%	6.85%	6.50%	6.21%

## COUNCIL BLUFFS CITY WATER WORKS

### NOTES TO REQUIRED SUPPLEMENTARY INFORMATION – PENSION LIABILITY

Year ended December 31, 2017

#### 1. Changes of benefit terms

Legislation passed in 2010 modified benefit terms for current Regular members. The definition of final average salary changed from the highest three to the highest five years of covered wages. The vesting requirement changed from four years of service to seven years. The early retirement reduction increased from 3 percent per year measured from the member's first unreduced retirement age to a 6 percent reduction for each year of retirement before age 65.

In 2008, legislative action transferred four groups – emergency medical service providers, county jailers, county attorney investigators, and National Guard installation security officers – from Regular membership to the protection occupation group for future service only.

#### 2. Changes of assumptions

The 2017 valuation implemented the following refinements as a result of a quadrennial experience study:

- Decreased the inflation assumption from 3.00 percent to 2.60 percent.
- Decreased the assumed rate of interest on member accounts from 3.75 percent to 3.50 percent per year.

The 2014 valuation implemented the following refinements as a result of a quadrennial experience study:

- Decreased the inflation assumption from 3.25 percent to 3.00 percent
- Decreased the assumed rate of interest on member accounts from 4.00 percent to 3.75 percent per year.
- Adjusted male mortality rates for retirees in the Regular membership group.
- Reduced retirement rates for sheriffs and deputies between the ages of 55 and 64.
- Moved from an open 30 year amortization period to a closed 30 year amortization period for the UAL beginning June 30, 2014. Each year thereafter, changes in the UAL from plan experience will be amortized on a separate closed 20 year period.

The 2010 valuation implemented the following refinements as a result of a quadrennial experience study:

- Adjusted retiree mortality assumptions.
- Modified retirement rates to reflect fewer retirements.
- Lowered disability rates at most ages.
- Lowered employment termination rates
- Generally increased the probability of terminating members receiving a deferred retirement benefit.
- Modified salary increase assumptions based on various service duration.

## OTHER INFORMATION

**COUNCIL BLUFFS CITY WATER WORKS**

**BUDGETARY COMPARISON SCHEDULE OF REVENUES,  
EXPENDITURES AND CHANGES IN BALANCES – BUDGET AND ACTUAL**  
Year ended December 31, 2017

	<u>2017 Actual</u>	<u>2017 Budget</u>	Budget Variance Favorable (Unfavorable)
Operating revenues:			
Metered water sales	\$ 11,494,502	\$ 11,300,000	\$ 194,502
Rental	189,952	184,000	5,952
Other	<u>806,799</u>	<u>710,000</u>	<u>96,799</u>
Total operating revenues	<u>\$ 12,491,253</u>	<u>\$ 12,194,000</u>	<u>\$ 297,253</u>
Operating expenses:			
Facilities and grounds	\$ 1,025,219	\$ 981,000	\$ (44,219)
Inventory adjustment	4,341	5,000	659
Purification	1,905,796	1,973,000	67,204
Distribution and meter	1,376,874	1,359,000	(17,874)
Customer accounting	504,192	444,000	(60,192)
Administration and general	2,566,134	2,430,000	(136,134)
Pension and social security	<u>413,349</u>	<u>450,000</u>	<u>36,651</u>
Total operating expenses	<u>\$ 7,795,905</u>	<u>\$ 7,642,000</u>	<u>\$ (153,905)</u>
Operating income	<u>\$ 4,695,348</u>	<u>\$ 4,552,000</u>	<u>\$ 143,348</u>
Nonoperating revenues (expenses):			
Interest on investments	\$ 230,493	\$ 210,000	\$ 20,493
Interest expense	(948,795)	(953,000)	4,205
Loss on disposal of equipment	<u>(8)</u>	<u>(5,000)</u>	<u>4,992</u>
Nonoperating revenues, net	<u>\$ (718,310)</u>	<u>\$ (748,000)</u>	<u>\$ 29,690</u>
Surplus (Deficit) from Operations	\$ 3,977,038	\$ 3,804,000	\$ 173,038
Debt Service	(1,478,000)	(1,478,000)	-
Capital Outlay	<u>(3,077,212)</u>	<u>(3,280,000)</u>	<u>202,788</u>
Surplus (Deficit)	<u>\$ (578,174)</u>	<u>\$ (954,000)</u>	<u>\$ 375,826</u>
Reconciliation to statement of revenues and expenses:			
Budget Basis Deficit	\$ (578,174)		
Debt Service	1,478,000		
Capital Outlay	3,077,212		
Pension Expense	(75,260)		
Depreciation and Amortization	<u>(3,584,913)</u>		
Excess of revenues over expenses	<u>\$ 316,865</u>		



**COUNCIL BLUFFS CITY WATER WORKS**

**BUDGETARY COMPARISON SCHEDULE OF REVENUES,  
EXPENDITURES AND CHANGES IN BALANCES – BUDGET AND ACTUAL**

Year ended December 31, 2017

**1. Budgetary reporting**

In accordance with the Code of Iowa, the Water Works' Board of Trustees adopts a budget following required public notice and hearing. The budget is adopted on a budget basis which consists of accrual basis revenues and expenditures plus cash outlay for debt service and capital improvements and cash receipts of bond proceeds. The annual budget may be amended during the year utilizing similar statutorily prescribed procedures. In 2017, there were no budget amendments and disbursements did not exceed the amount budgeted.



**INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING  
AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL  
STATEMENTS PERFORMED IN ACCORDANCE WITH  
"GOVERNMENT AUDITING STANDARDS"**

The Board of Trustees  
Council Bluffs City Water Works  
Council Bluffs, Iowa

We have audited the financial statements of the Council Bluffs City Water Works as of and for the year ended December 31, 2017 and have issued our report thereon dated April 10, 2018. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

Internal Control Over Financial Reporting

Management of Council Bluffs City Water Works is responsible for establishing and maintaining effective internal control over financial reporting. In planning and performing our audit, we considered the Council Bluffs City Water Works' internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Council Bluffs City Water Works' internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the Council Bluffs City Water Works' internal control over financial reporting.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. *A material weakness* is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be deficiencies, significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Council Bluffs City Water Works' financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

### **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the result of that testing and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

*Hamilton Associates, P.C.*

Council Bluffs, Iowa  
April 10, 2018

## COUNCIL BLUFFS CITY WATER WORKS

### SCHEDULE OF FINDINGS

Year ended December 31, 2017

#### I. FINDINGS RELATED TO THE FINANCIAL STATEMENTS

None reported

#### II. OTHER FINDINGS RELATED TO STATUTORY REPORTING

- II-A-17 Certified Budget – We compared the Water Works disbursements for the twelve months ended December 31, 2017 with the published budget and found that disbursements did not exceed the amounts budgeted.
- II-B-17 Questionable Disbursements – No disbursements that we believe may not meet the requirements of public purpose as defined in an Attorney general's opinion dated April 25, 1979 were noted.
- II-C-17 Travel Expense – No expenditures of funds for travel expenses of spouses of Water Works' officials or employees were noted.
- II-D-17 Business Transactions – During the course of our audit of Water Works as of December 31, 2017, we looked at many records substantiating disbursements. We noted no business transactions between the Water Works and Water Works' officials or employees.
- II-E-17 Bond Coverage – We reviewed the statutory provisions for surety bond coverage of Water Works' officials and employees. The City has an ordinance allowing the City to set bonding requirements for the Water Works. Resolution 83-475 sets the amount of surety bond coverage for board members at \$500 annually. Water Works maintains public officials' liability insurance, which sufficiently meets bond coverage requirements.
- II-F-17 Board Minutes – We noted no transactions that we believe should have been approved in the Board minutes but were not.
- II-G-17 Deposits and Investments – No instances of non-compliance with the deposit and investment provisions of Chapters 12B and 12C of the Code of Iowa and the City's investment policy were noted.
- II-H-17 Revenue Notes – No instances of non-compliance with the revenue bond and note requirements were noted.