AGENDA Monday, November 10, 2008

Informational Sioux Falls City Council

4:00 p.m. at Carnegie

Town Hall

235 West 10th Street

1. Call To Order

2. City Council Staff Report

A. Updates from Debra A. Owen, City Clerk

Draft 2009 Legislative Priorities

3. Mayor Munson

4. Audit Committee

5. Fiscal Committee

6. Land Use Committee

7. Public Services Committee

8. City Council Open Discussion

Doc: Updated draft 2009 Legislative Priorities

9. Presentations

A. Water Distribution Internal Audit Report by Rich Oksol, Lead Internal Auditor

Water Distribution Audit

Water Distribution Audit Powerpoint Slides

10. Executive Session

11. Adjournment

Date: 2008-11-10
SIRE Meeting ID: 957
Meeting Type: Informational Meeting

YouTube:https://youtu.be/XLP4je5F7jU
Agenda Item: Not Assigned
Item ID: 40660

A RESOLUTION ESTABLISHING THE SIOUX FALLS CITY COUNCIL'S PRIORITIES FOR THE 2009 STATE LEGISLATIVE SESSION.

BE IT RESOLVED BY THE CITY OF SIOUX FALLS, SD:

1. The Sioux Falls City Council strongly encourages the legislature to enact enabling legislation which allows municipalities to levy a local option tax to raise funds for a specified purpose.

2. The Sioux Falls City Council strongly encourages the legislature to ensure adequate funding to meet transportation needs.

3. The Sioux Falls City Council, in conjunction with the South Dakota Municipal League, encourages standards be developed to provide equal 911 service to all citizens and visitors, and encourages cooperative efforts to improve 911 services and efficiency.

4. The Sioux Falls City Council strongly encourages the legislature to repeal the preemption laws regarding smoking. Municipalities should have the right to use local option to regulate the sale and use of tobacco products.

Date: 2008-11-10
SIRE Meeting ID: 957
Meeting Type: Informational Meeting

YouTube:https://youtu.be/XLP4je5F7jU
Agenda Item: Not Assigned
Item ID: 40667

A RESOLUTION ESTABLISHING THE SIOUX FALLS CITY COUNCIL'S PRIORITIES FOR THE 2009 STATE LEGISLATIVE SESSION.

BE IT RESOLVED BY THE CITY OF SIOUX FALLS, SD:

1. The Sioux Falls City Council strongly encourages the legislature to enact enabling legislation which allows municipalities to levy a local option tax to raise funds for a specified purpose.

2. The Sioux Falls City Council strongly encourages the legislature to ensure adequate funding to meet transportation needs.

3. The Sioux Falls City Council, in conjunction with the South Dakota Municipal League, encourages standards be developed to provide equal 911 service to all citizens and visitors, and encourages cooperative efforts to improve 911 services and efficiency.

4. The Sioux Falls City Council strongly encourages the legislature to enact a statewide ban on smoking in all enclosed work places, public buildings, restaurants, bars, and casinos.

Date: 2008-11-10
SIRE Meeting ID: 957
Meeting Type: Informational Meeting

YouTube:https://youtu.be/XLP4je5F7jU
Agenda Item: Not Assigned
Item ID: 40670

WATER DISTRIBUTION AUDIT
INTERNAL AUDIT REPORT 08-06

INTRODUCTION
The City of Sioux Falls City Council authorized this audit in the 2008 Annual Audit Program. This is the first internal audit of the water distribution system.

BACKGROUND
The City of Sioux Falls water system provides treated water for over 42,000 residential customers and nearly 4,000 commercial customers. In 2007, total pumpage was 7.8 billion gallons of treated water. The purification plant is designed to treat up to 54 million gallons of water per day. The City has 904 miles of distribution mains, 48.5 miles of supply transmission lines and 7,009 hydrants.

The City of Sioux Falls treated water allows the public to drink from any water tap with the highest assurance of safety.

- The water distribution system meets or exceeds rigorous federal, state, and local health protective standards.
- Our well maintained system is critical in protecting our city from the ever present threat of fire.
- A safe, reliable water supply is absolutely necessary for businesses' day to day operations, along with being the foundation for new housing developments.

Any measure of a successful community is in some way related to a safe, reliable water supply.

Water for Sioux Falls comes from a blend of ground water and surface water. The Big Sioux River provides surface water. The Big Sioux Aquifer (north of Sioux Falls), the Middle Skunk Creek Aquifer (northwest of Sioux Falls near Lyons), and the Split Rock Creek Aquifer (between Sioux Falls and Brandon) supply the ground water The Lewis and Clark Regional Water System will eventually provide over 28 million gallons per day of treated water to Sioux Falls.

Water department employees are organized in three groups for budget purposes:

- Water plant
- Water billing
- Water meters

Additionally, the Utility Maintenance division of the Street Department works extensively with the water distribution system. Total full time equivalents (FTEs) for Utility Maintenance and Water were 68 in 2007.

OBJECTIVES

Audit objectives were as follows:

1. Determine if water emergency response and procedures are timely and appropriate.
2. Determine the extent to which water meters are recording accurate consumption.
3. Determine if unaccounted for water (UAW) is reasonable, given industry standards.
4. Determine if fire hydrants are being flushed, maintained, and inspected on a regular basis.
5. Determine if existing distribution system valves are operating properly and are being regularly maintained.
6. Determine if aging water infrastructure is being identified and replaced in a timely manner.
7. Determine if fixed assets along with supplies and materials inventories are properly accounted for.

SCOPE AND METHODOLOGY

This audit focused on the City of Sioux Falls water distribution system and its current policies and procedures. While most aspects of the audit covered the period from January 2004 to July 2008, some historical data back to 1999 was utilized. We reviewed the professional literature on water systems, reviewed the Water Distribution System Master Plan Update, interviewed management and staff, toured the purification plant, observed maintenance crews performing their duties, performed recalculations, examined documents including the City's Capital Improvement Plan, and read audit reports from other local governments on this subject. To come up with audit objectives, we did a risk analysis to identify potential risks to the City. We then identified potential controls to mitigate these risks and gathered evidence on whether these controls were in place and working effectively. For example, one risk in a water distribution system would be that fire hydrants fail to provide water when needed. A control to mitigate this risk would be annual inspections with flow testing, flushing, and proper maintenance of all fire hydrants.

NOTEWORTHY ACTIONS

The City of Sioux Falls has recently received national attention for the **quality of its tap water.** The water in Sioux Falls is considered among the best in the United States ranking behind only two other cities, Des Moines, Iowa and Austin, Texas. University of Cincinnati researchers compiled the information on municipal water systems in a publication called "United States Drinking Water Quality Study Report". The study looked at water clarity, levels of bacteria, levels of lead, and levels of haloacetic acids, a byproduct of water disinfection.

We also noted that the water system's **unaccounted for water (UAW)** is well below the industry standard. Other municipal water system managers have inquired as to how Sioux Falls is able to achieve this level. See pages three and four of this report for more details.

We observed the **efficiency and effectiveness** of the utility maintenance crews in performing their maintenance and repair duties. The maintenance crews are highly experienced and skilled. They quickly and expertly repair water main breaks. These repairs often have to be done under less than ideal weather conditions and at all times of the day or night. Another large responsibility of the Utility Maintenance division is to promptly respond to the "South Dakota One Call" program. To ensure public safety, the program mandates that the worker identify and mark water, sewer, storm sewer, and sump lines in a timely manner.

RESULTS

EMERGENCY RESPONSE

Utility Maintenance crews are primarily responsible for responding to water emergencies. Typical water emergencies may result from damaged hydrants, broken valves, and water main breaks. In 2007, there were 63 water main breaks. Our audit conclusion was that the City's response to water emergencies was both timely and appropriate. Utility Maintenance management has a detailed list of priorities for their work. Emergency situations are at the top of the work list and response to emergencies is performed in a timely manner. However, we did note that while procedures and priorities are in place and well understood by maintenance crews, there is a lack of formal, written policies and procedures. **See recommendation one on page nine of this report**.

WATER METERS

Water meters are essential in order to accurately determine how much to charge customers for their water use. A water meter testing and change out program is a good way to ensure that water meters are accurately measuring water consumption. As meters age, their accuracy deteriorates. The professional literature we reviewed stated that meters always record low as they age. The water utility may lose potential revenue as meters age and if not replaced on a timely basis.

There is no formal water meter testing and change out program in place for the smaller residential meters. **See recommendation four on page nine of this report**. The very largest meters (e.g. John Morrell's plant) are tested regularly. A small sample of the 5/8 inch meters, which are typically installed in residential properties, is tested annually. The large commercial meters are replaced on a regular basis. The experience of Sioux Falls Water is that meters that are 20 years old often test at 99 to 100 percent accuracy. This could be due to the high quality of the treated water in Sioux Falls (see page two of this report). However, our research indicated that a best practice is to change out meters on a predetermined schedule. Manufacturers typically guarantee their meters for 10 years. Municipal water systems that have a formal change out program will change meters every 13 to 18 years.

UNACCOUNTED FOR WATER

Not all water treated and pumped through the water distribution system is charged to a customer. Unaccounted for water (UAW) is an industry term for water losses from such things as:

- Aging meters. As water meters age, their accuracy can decline several percentage points from an original accuracy of 98 to 100 percent for new meters.
- Leaks. Water mains can break and leak for various reasons.
- Water theft. Water meters can be bypassed by installation of a separate pipe that connects to a City water line.

UAW, in its simplest form, is calculated by figuring the difference between the amount of water produced and the amount of water sold to all customers. Some of the water treated by the water plant is not charged to a customer but is accounted for. This would be considered unmetered usage and is typically estimated. For example, Sioux Falls Fire Rescue uses water for fire fighting operations and provides an estimate to the billing office each year on their usage. The Utility Maintenance group also provides an estimate to the Utility Billing office for the amount of water that is lost during water main breaks. Similarly, the Street Department uses water for street sweeping. Unmetered water was less than 2/10 of one percent of the total pumpage in 2007.

15 percent was once considered the acceptable industry standard for UAW loss. Recently, the Federal Environmental Protection Agency (EPA) has established an industry goal of 10 percent for UAW losses. In 2007, Sioux Falls Water had an UAW loss of 6.3 percent, well below the industry standard. Many municipal water systems around the country have UAW losses that are far above the industry standard. Birmingham (Alabama) Water Works could not account for nearly 30 percent of the water produced.

UAW is an important performance measure of a water system because it can directly affect the amount of money that customers must pay for their water. Municipal water systems operate as enterprise funds and must cover their cost of operations through user fees. An excessive amount of UAW would result in greater user fees to cover operational costs.

Since 2004, Utility Maintenance has had an active Water Leak Survey Program to investigate suspected leaks in the water distribution system.

Our audit work consisted of researching industry standards, verifying estimates of unmetered water, and performing various recalculations to confirm that Sioux Falls Water is accurately and appropriately monitoring their unaccounted for water.

HYDRANTS

The American Water Works Association (AWWA) recommends an annual evaluation of fire hydrants to include an inspection of condition and a flushing to determine adequate pressure. Additionally, per city Ordinance, adopted codes, and standards, there are distinct requirements for inspection, testing, and maintenance of fire hydrants. The National Fire Protection Association (NFPA) 25 – Standard for Inspection, Testing, and Maintenance of Water-Based Fire Protection System – outlines those requirements along with performance frequencies for each requirement.

Flushing has an additional benefit of clearing the water mains of sediment. Some cities and counties assign the responsibility for fire hydrants to the fire department. In Sioux Falls, maintenance and repair of hydrants is the responsibility of Utility Maintenance. Properly maintained fire hydrants are important for public safety in the event of fires. Minutes count in a fire emergency. If a fire crew hooks up to a malfunctioning fire hydrant, they must then spend additional valuable minutes locating and hooking up to an alternate hydrant.

We interviewed Sioux Falls Fire Rescue personnel as part of our audit work. Fire Rescue stated that the working relationship between Fire and Utility Maintenance has been very good. Utility Maintenance crews notify Fire Rescue of any hydrants that are inoperable due to repair or replacement issues. Fire Rescue recently had a site visit from their national accreditation team. There were no comments or adverse findings from the accreditation team concerning maintenance of fire hydrants.

Our review of maintenance records and interviews with management indicated that the entire inventory of City owned hydrants receive an annual inspection and flushing. Some hydrants, approximately 900, are private. Examples would be hydrants in apartment and condominium complexes, colleges and universities, industrial and commercial facilities, gated communities, country clubs, and mobile home parks. Fire Rescue and Utility Maintenance has GIS* coordinates on all fire hydrants in the city; however, Utility Maintenance does not always utilize the GIS identification system for the hydrants in their inventory. They generally use the nearest street address to refer to the location of hydrants. **See page nine of this report for recommendation two on developing a more detailed inventory system.**

Some, but not all of the approximately 900 private hydrants are flushed and maintained by Utility Maintenance crews. There is currently no procedure or ordinance in place to ensure that all private hydrants are flushed and maintained on a regular basis. Sioux Falls Fire Rescue indicated that the Fire Prevention Division is working on a plan to ensure that private owners are responsible for meeting the requirements of city ordinance, specifically those governed by NFPA 25.

Private fire hydrants are defined to include all associated water distribution appurtenances, including pipes, valves, fittings, signs, mechanical and climate protection and associated maintenance.

Chapter 10 of the City of Sioux Falls Engineering Design Standards for Public Improvements states in section 10.2.1 that:
Private fire hydrants shall be provided to meet the fire code when distance to the nearest hydrant is greater than those prescribed by the fire code.
Section 10.1.12 of the same document states that:

* Geographic Information System, information system that is used for analyzing, storing, and managing information linked to a location

Private fire hydrant systems shall be maintained in an operative condition at all times and shall be repaired where defective. Additions, repairs, alterations, and servicing shall comply with approved standards.

The above referenced chapter, along with other City documents, does not specify direct responsibility or accountability for maintaining these private hydrants that comprise 13% of the total number of hydrants in Sioux Falls. We recommend a City ordinance be written to address the issue of private hydrants. **See recommendation six on page ten of this report.**

Hydrant flushing and inspection is done twice a year, in the spring and fall. Here is a summary of hydrant maintenance activity for the last three years:

2006
5,613 total hydrants flushed
538 reported problems (10% of hydrants that were flushed)
Most common problem reported: pressure too high/low, 176 (3% of total hydrants flushed)

2007
6,251 total hydrants flushed
276 reported problems (4% of hydrants that were flushed)
Most common problem reported: needs grease, 65 (1% of total hydrants flushed)
Note: only 34 hydrants had too low/high pressure compared to 176 the previous year

2008
2,470 total hydrants flushed (spring flushing; fall flushing yet to be completed)
Note: in 2006, 2,098 hydrants flushed in spring; in 2007, 2,427 hydrants flushed in spring
88 reported problems (4% of hydrants that were flushed)
Most common problem reported: missing flags, 38 (2% of total hydrants flushed)

In 2007, there were about 7,000 hydrants in Sioux Falls: 6,251 or 89% of the total hydrants, private and City-owned, were flushed and inspected by Utility Maintenance. (About 6,100 of the 7,000 total hydrants in Sioux Falls are City owned; the remaining 900 are private).

VALVES
Valves are devices that regulate and stop or start water in the distribution system. An industry recommended practice is to make sure these valves operate properly through a formal valve exercising program. According to the American Water Works Association (AWWA):
Each valve should be operated through a full cycle and returned to its normal position on a schedule that is designed to prevent buildup of tuberculation [rust formation in pipes as a result of corrosion] or other deposits that could render the valve inoperable or prevent a tight shutoff.

Sioux Falls Utility Maintenance does not have a formal valve exercising program. Valve exercising of some valves is done each year in conjunction with street reconstruction projects. As time and resources have been available, valve exercising has been done in certain sections of Sioux Falls. Almost all municipal water system managers know they should have a formal valve program, but few actually do. There is a very real danger of breaking a valve when it is exercised, especially if it has never been operated or exercised since installation. Another danger is the potential for a water "hammering" effect downstream of a valve as it is exercised. This hammering could rupture a water main. Utility Maintenance has recently acquired equipment that would facilitate a valve exercising program. **See recommendation five on page ten of this report.**

Valve replacement has been a part of the City's Capital Improvement Program (CIP) for several years. The goal has been to replace at least two large valves a year. Valve replacement is coordinated with street reconstruction whenever possible for the purpose of cost efficiency. To develop a list of potential valves to be replaced, City engineers coordinate with Utility Maintenance and Water Purification managers to identify problem valves. In 2008, $102,000 was budgeted for valve replacement in three locations.

INFRASTRUCTURE

Infrastructure is typically defined as the basic installations and facilities upon which the continuance and growth of a community or state depend. Infrastructure may be water mains and valves, roads, bridges, and power plants. Water infrastructure in this audit report refers primarily to the water supply transmission lines, large water valves, and the distribution mains. The supply lines are the larger pipes that carry treated water to the smaller distribution mains. The City has 48 miles of supply lines and 900 miles of distribution mains.

Aging water infrastructure and the funding to replace it remains a top national concern. Engineering experts warn that the United States, in general, is not investing enough to maintain infrastructure in good repair. According to the American Water Works Association, much of the nation's water infrastructure was constructed during three periods: the late 1800's, the roaring 1920's, and during the post World War II baby boom.

Our audit objective was to determine if aging water infrastructure is being identified and replaced in a timely manner. Our conclusion is that it is. However, it is a difficult process to predict when a certain water supply line or distribution main will fail because of age. Reinvesting in water infrastructure will prevent today's concerns from becoming a crisis in the future.

According to City engineers, the policy is that we don't generally replace water infrastructure unless it is broken. The City has identified three locations within the City that have an ongoing history of water main breaks and has allocated CIP funds to replace water main infrastructure. These locations are the old Army airbase site in the north end of Sioux Falls, the Western Heights area of southwest Sioux Falls, and the Raven

Oaks/Scenic Heights development located in southeast Sioux Falls. The airbase site has very old pipes made of cast iron. These are being replaced. The Western Heights and Raven Oaks/Scenic Heights areas have problems with "hot" (corrosive) soil. Pipes are being replaced in these identified areas with pipes and materials that don't react with the soil conditions. City staff will continue to monitor water main breaks to evaluate if and when water distribution systems located in other parts of the City need to be replaced.

For purposes of depreciation, water distribution mains are considered to have a useful life of 50 years. However, assets often have a longer useful life than what is used to calculate depreciation. Some literature we reviewed suggested that water lines can have a useful life of up to 100 years. In the late 1980's and early 1990's, the City had a program to reline water mains to extend their useful life. Additionally, the City's Capital Improvement Program has regularly included money for water infrastructure projects that are done in coordination with street reconstruction. Figures compiled from CIP and financial records over the last four years are as follows:

WATER INFRASTRUCTURE EXPENDITURES

	Infrastructure (City-Funded)	Water Mains Booked	Total Assets
2008	$3,317,934		
2007	$4,017,949	$ 9,768,302	$315,356,072
2006	$2,696,685	$18,461,723	$233,237,452
2005	$2,173,980	$ 0	$222,523,780

Public Works uses a consulting engineering firm every five years or so to prepare a Water Distribution System Master Plan Update. The last report was completed in 2003. The next update will be prepared in 2009. The consulting engineering firm is hired to do a water distribution system analysis, make recommendations on short range and long range improvements, and provide an opinion on probable costs.

FIXED ASSETS AND INVENTORIES

We determined that fixed assets/noncapital inventory and supplies plus materials inventories were properly accounted for. The City defines fixed assets as items with a life greater than one year and a value in excess of $7,500. Noncapital inventory items have a life greater than one year and a value between $500 and $7,499. Fixed assets and noncapital inventory are assigned asset numbers. Supplies plus materials inventories are the spare parts and consumables that do not fit the definition of fixed assets and noncapital inventory. Our audit work for fixed assets/noncapital inventory consisted of verification of a sample of items on the City's register of water assets. Our audit work for water and water maintenance inventories consisted of inventory counts of samples of inventory items with a comparison of our physical count to the "book" count on the computer system for that inventory item.

RECOMMENDATIONS

1. An overall recommendation for all divisions that deal with the water distribution system would be to formalize their policies and procedures into an electronic and hard copy format. Well established informal and understood policies and procedures are currently being followed but these need to be formalized. Formalized policies are useful for training personnel and for ensuring continuity in operations when personnel retire.
   Public Works supports this recommendation.
2. Utility Maintenance performs the inspections, repairs, and maintenance on the fire hydrants. All hydrants located within the City limits have been located and captured using GPS equipment. While these fire hydrant points have been geospatially edited and transferred in the City's GIS database, Utility Maintenance does not utilize the GIS database for its hydrant identification. They generally rely upon the nearest street address to identify hydrants. Use of this database would facilitate the flushing, repair, and maintenance record keeping. It would help ensure that every hydrant in Sioux Falls is inspected and flushed annually. We recommend that Utility Maintenance develop an identification system that ties into this database and physically mark each hydrant with their identification system.
   Public Works response: We will explore options in 2009 above the current northing and easting coordinates that may be beneficial from an identification standpoint.
3. In the spring of the year, the hydrants located within the I-29, I-229, and I-90 boundaries are inspected and flushed. There are approximately 2,500 hydrants in this geographical area. That leaves approximately 4,500 hydrants outside of this area that need to be serviced in the fall. It may benefit the program to even out the total number of inspections between the spring and fall operations.
   Public Works Response:
   The requirement for the inspection, testing, and maintenance of fire hydrants does not consider a calendar specific date implementation. NFPA 25 mandates that the required testing, inspection, and maintenance be performed annually. This task is currently being accomplished successfully by city water crew and by realizing staffing, scheduling, weather conditions, and other limitations.
4. According to Utility Billing/Metering management, there currently is no routine change out program for 5/8 and 3/4 inch residential water meters. They do test a relatively small number of meters that are taken out of service for various reasons. Management has been tracking the results of these inspections to watch for any trends that may warrant a change out program. There are nearly 16,000 5/8 inch meters that are 10 to 15 years old with another 4,500 that are 15 to 30 years old. There are 3,500 3/4 inch meters that are 10 to 15 years old with another 2,500 that are 15 to 30 years old. Based upon the large number of meters that are 10 years old or older, we recommend that a more extensive testing program be implemented to test a much larger sample of meters. Particular emphasis should be paid to the 16,000 5/8 inch meters that are in the 10 to 15 year age bracket. This expanded testing will enable staff to identify, plan, and budget for the inevitable replacement of these aging meters in a timely manner.
   Public Works supports this recommendation to increase the number of smaller size

meters in the annual testing program. In addition, we agree it is appropriate to start sampling meters from the 10 to 15 year age category; however, we feel based on historical data, emphasis for testing should be placed on meters 20 to 25 years old and even more on meters older than 25 years.

5. The valve exercising program has been limited in the past. Our recommendation is to expand and formalize the program. The recent purchase of a trailer mounted machine by Utility Maintenance will aid in the actual operation and exercising of the valves. The Street Utility division has also formally requested two full time Utility System workers for 2009. These additional workers will enable the division to implement a full time exercising and operating program.
   Public Works supports this recommendation.
6. In order to ensure that the private fire hydrants, including the related water distribution appurtenances, are operational, we recommend that a City of Sioux Falls ordinance be written, by the involved parties, to address the following concerns:
   - Hydrants shall be accessible to Fire Rescue personnel
   - Owners of private fire hydrants shall be responsible for testing and maintenance of their fire hydrants
   - Fire Rescue will have a program to make sure qualified individuals are performing the testing and maintenance of fire hydrants
   - Provide a suitable enforcement mechanism to ensure that fire hydrants are being properly tested and maintained

The following is the management response from Fire Rescue: The ordinance should be written and enforced by Sioux Falls Fire Rescue. A City ordinance to address the issue of private hydrants should include the following:

A. Provide a definition for private fire hydrants and all associated water distribution appurtenances including pipes, valves, fittings, signs, and mechanical protection.
B. Provide guidelines regarding the flushing, testing, and maintenance of private fire hydrants to include but not be limited to:

1) Define that owners of private fire hydrant system shall be responsible for testing, inspection, and maintenance of their fire hydrants.
2) Establish and enforce a testing, inspection, and maintenance program/requirement for all private fire hydrants.
3) Certify qualified individuals to perform the required testing, inspection, and maintenance. Written reports of private fire hydrants to be submitted to Fire Rescue for review and acceptance. Fire Rescue to administer the certification program on an annual basis and maintain a list of those certified.
4) Provide provisions in order to issue citations to private fire hydrant owners who are in violation of the subject City ordinance. In the event that the private fire hydrant owner does not meet the requirements set forth in the inspection and testing of the fire

hydrants, the said work will be accomplished using City approved/listed contractors and all associated costs will be billed to the property owner.

C. *Hydrant locations shall be accessible for Fire Rescue use as determined and approved by Sioux Falls Fire Rescue.*
D. *All fire hydrant equipment shall comply with current requirements of the City of Sioux Falls.*

Date: 2008-11-10
SIRE Meeting ID: 957
Meeting Type: Informational Meeting

YouTube:https://youtu.be/XLP4je5F7jU
Agenda Item: Not Assigned
Item ID: 40671

Water Distribution Audit

Internal Audit Report 08-06

Objectives

1. Determine if water emergency response and procedures are timely and appropriate.
2. Determine the extent to which water meters are recording accurate consumption.
3. Determine if unaccounted water is reasonable, given industry standards.
4. Determine if fire hydrants are being flushed, maintained, and inspected on a regular basis.

Objectives (continued)

5. Determine if existing distribution system valves are operating properly and being regularly maintained.
6. Determine if aging infrastructure is being identified and replaced in a timely manner.
7. Determine if fixed assets along with supplies and materials inventories are properly accounted for.

Noteworthy

- Quality of our tap water (Sioux Falls water among the best in nation)
- Unaccounted for water is well below industry standards
- Efficiency and effectiveness of utility maintenance crews

Recommendations

Formalize and expand the valve exercising program.

Additional utility maintenance worker positions authorized for 2009 should help as well as recent purchase of trailer mounted machine

Recommendations

PRIVATE FIRE HYDRANTS

We recommend an ordinance be written to address the issues of responsibility for testing and maintenance and a suitable enforcement mechanism.

Conclusion

We appreciate the cooperation and courtesy from management and staff during the process of this audit.

QUESTIONS?