

August 14, 2009  
Mayor & City Council Members  
City of Waverly

**EXECUTIVE SUMMARY OF THE**  
**2007-08**  
**PUBLIC WORKS DEPARTMENT**  
**ANNUAL REPORT**

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Highlights of the 2007-08 fiscal year for the Public Works Department are summarized for quick review. The following 9 divisions represent the Public Works Department's primary areas of responsibility. This executive summary is not meant to be inclusive of all activities, but rather a snapshot of the highlights over the past year. Detailed information is provided in the attached annual report.

On June 10, 2008 the City of Waverly was severely impacted by a 500-year flood on the Cedar River that affected approximately 30% developed property. The majority of the flood impact on the Public Works Department will show up in the 2008-09 annual report.

**Division 1 – Public Works Administration**

Public Works Administration is responsible for coordinating and overseeing public improvement projects. Over the past year many projects were either under construction or in the study phase. Projects include:

<b><u>Projects</u></b>	<b><u>Initiated</u></b>	<b><u>Finalized</u></b>	<b><u>Cost</u></b>
Wastewater Treatment Plant Improv. - 2007	Aug 2007	Ongoing	\$ 800,000
Public Services Facility Needs Study	Aug 2004	Ongoing	150,000
Public Services Site Dev. – Ph 1a Grading	Dec. 2007	Jan 2009	266,972
Public Services Site Dev. – Ph 1 Recycling Ctr	Dec. 2007	ongoing	742,926
3 <sup>rd</sup> St NE Parking Lot Reconstruction & 1 <sup>st</sup> Street NW Intersection Improvements	Aug 2006	Sep 2007	252,912
Asphalt Patching – 2007	Sep 2007	Dec 2007	19,736
Bituminous Seal Coat 2007	Feb 2007	Aug 2007	114,500
Bituminous Seal Coat 2008	Feb 2008	Aug 2008	120,883
4 <sup>th</sup> Ave. SW & 11 <sup>th</sup> St. SW Reconstruction 2007	Apr 2007	Sept 2008	361,500
Airport Hangar Concrete Floor 2008	Apr 2008	June 2008	4,490
1 <sup>st</sup> St. NW Municipal Parking Lot Improv. 2007	Apr 2007	Sep 2008	488,000
Crestwood Pk to Brookwood Pk Trail Extension	Apr 2007	Sep 2008	140,000
16 <sup>th</sup> St. SW Sidewalk Construction 2007	May 2007	Sep 2007	64,000
16 <sup>th</sup> St. SW Sidewalk Construction 2008	Mar 2008	Sep 2008	25,837
Curb & Gutter Replacement 2007	May 2007	Sep 2007	21,500
Airport Access Road 2007	Jun 2007	ongoing	7,500
Culvert & Drainage Improvements 2007	Jun 2007	Dec 2007	35,773

<b>Projects</b> (Cont'd)	<b>Initiated</b>	<b>Finalized</b>	<b>Cost</b>
Drainage Improvements 2008	Apr 2008	Dec 2008	60,400
SE Water Main Loop 2008	Jun 2007	Oct 2008	712,068
4 <sup>th</sup> Street SW Corridor Improvements	Jul 2008	Ongoing	2,850,000
Demolition of Old WPC Facility 2007	Jul 2007	Feb 2008	35,000
> Sludge Removal from Old WPC Facility			54,000
Rolling Hills Trail 2007	Jul 2007	Dec 2007	10,160
Rolling Hills Trail Construction 2008	Jul 2007	Sep 2008	39,000

Total value of work **finalized** between July 2006 thru June 2007 **\$ 487,298**

Total value of work **under design and/or construction** between July 2006 thru June 2007 **\$ 6,889,859**

<b>Subdivision w/ Public Infrastructure</b>	<b>Approved</b>	<b>Accepted</b>	<b>Lots</b>	<b>Feet</b>
Centennial Oaks Golf Club Add. – Phase 3A	April 2003	No	18	1,106
Wal-Mart Supercenter	April 2005	July 2007	3	0

Totals for July 2007 thru June 2008  
Newly Accepted Streets 3 \* = 0 \*

\*The City has not accepted the Centennial Oaks - Phase 3A Improvements

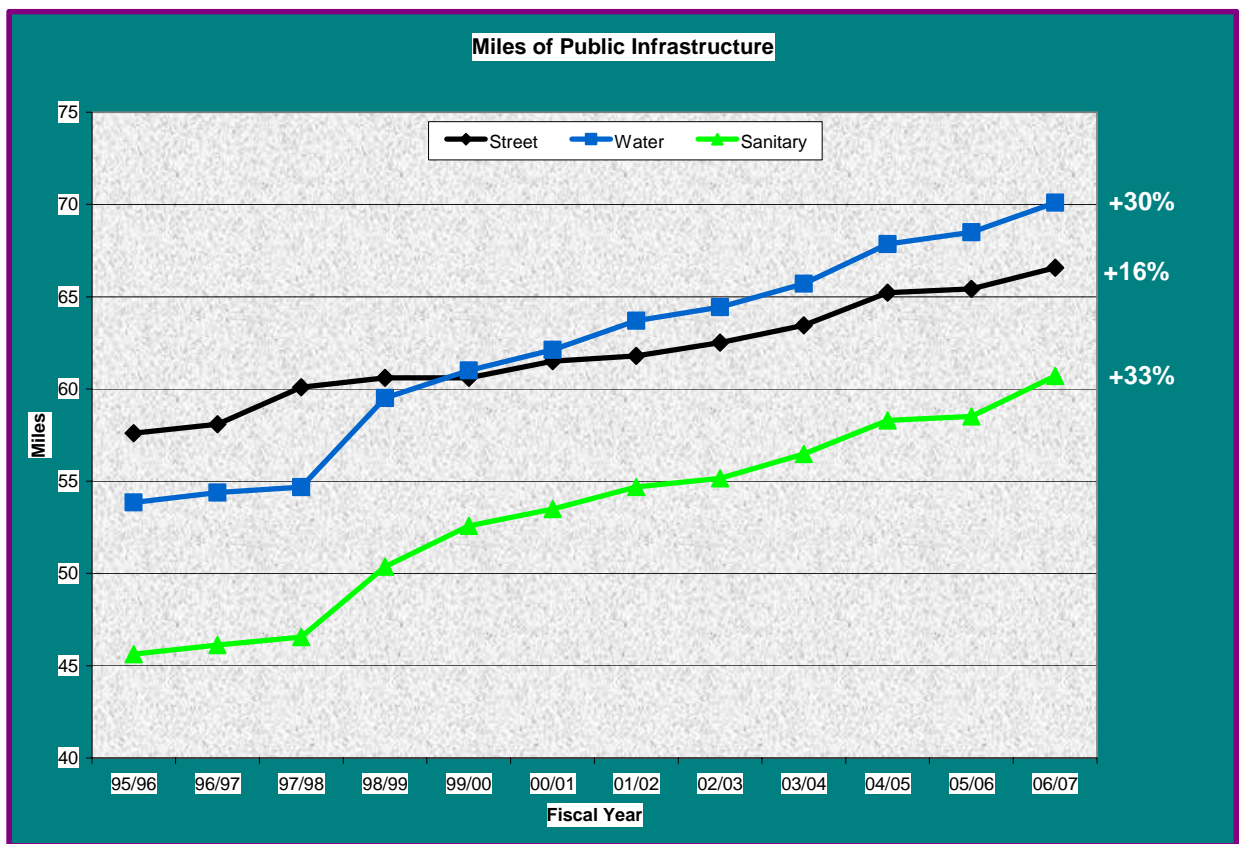
Public Works Administration is also responsible for coordinating and overseeing the general operations and budgets of all 9 divisions. Division leaders are responsible for the daily operations and report to the Public Services Superintendent. The 2006-07 actual and the 2007-08 budgeted division expenditures were:

Division	2006-07 Actual	2007-08 Budget
Public Works Administration	\$ 155,863	\$ 167,008
Streets General	284,810	302,916
Equipment Services	187,880	211,245
Engineering	274,728	273,546
Street RUT (+ Transfer)	728,515	831,183
Water (Service, Misc., Int.)	1,123,592	1,114,752
Water Pollution Control (Service, Misc., Int.)	1,218,976	1,330,294
Sanitary & Storm Sewer Maintenance	145,857	255,124
Solid Waste	791,991	905,514
Airport	80,717	78,089
	<b>\$ 4,992,929</b>	<b>\$ 5,469,671</b>

Due to the complexity of City budgeting and financing, the above table is intended to only be a snapshot. The timing of various equipment purchases or projects absorbed

into the annual operating budgets can distort year-to-year comparisons. Detailed information is available in the City's FY07-08 annual audit.

An increasing amount of public infrastructure will create maintenance challenges in coming years. The graph below shows how the total miles of streets, water mains and sanitary sewer mains have increased over the past decade. The maintenance needs of the new infrastructure will increase with age. To date the full-time staffing levels within these areas have remained unchanged for about 20 years. A proactive equipment replacement schedule and technological advances are allowing the City to maintain excellent service. However, continued growth will inevitably require that additional staff is hired in order to maintain an acceptable and expected level of service to the community.

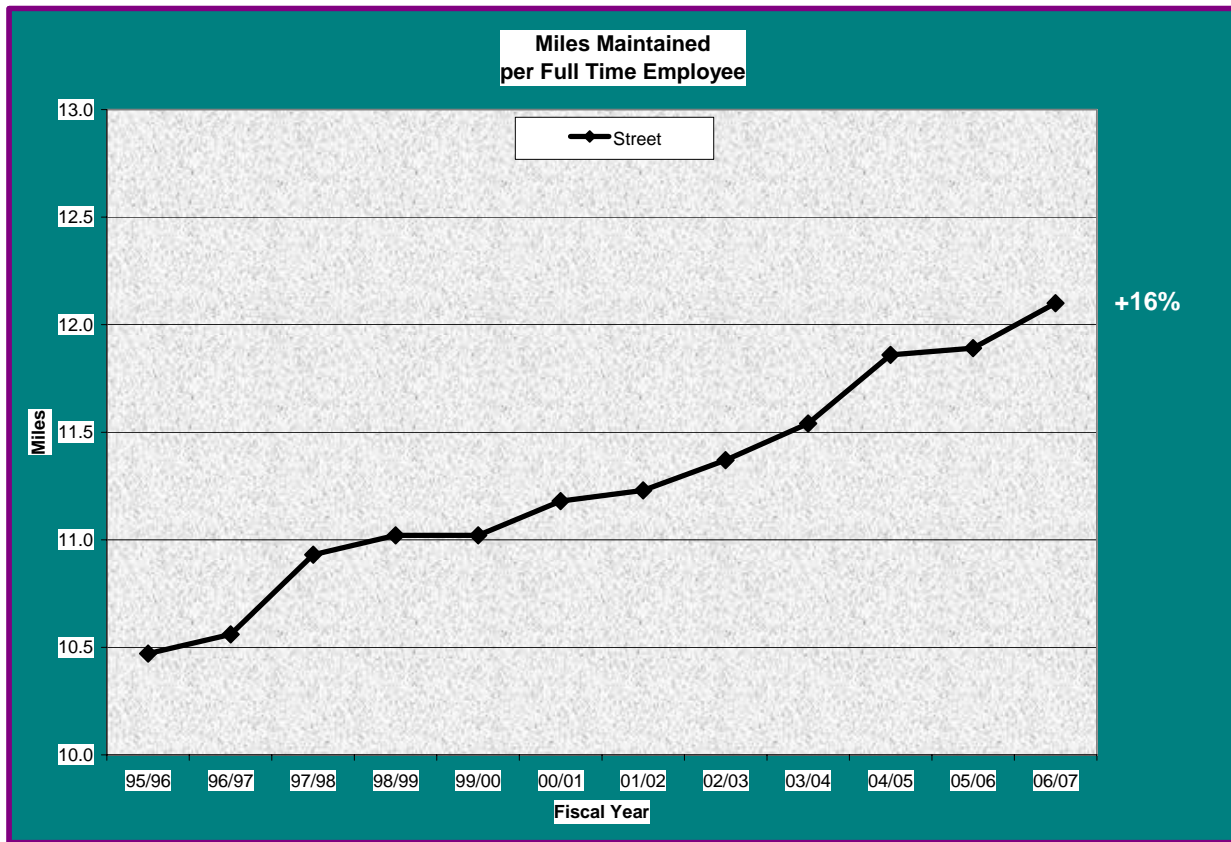


In an effort to increase public awareness a Public Works quarterly newsletter is mailed to every address within Waverly. The public response to the newsletter is very favorable. Articles highlight the services provided to the public and information on public works projects.

### Division 2 – Street Division

The City owns 63.6 miles of roads, has 2.0 miles of joint jurisdiction (city/county roads) and there are 7.0 miles of state roads through Waverly. Of the 72.6 total miles, the City

is responsible for maintaining 66.6 miles. In the fiscal year 2006-07 the City accepted 0.94 miles of new streets that developers built. Additionally, there are 0.19 miles of streets under construction by developers and planned for acceptance by the City in the next fiscal year. The number of miles of city, county and state roadways was recalculated in September 2006. In the coming years, as time permits, we hope to develop and maintain a detailed breakdown of the number of miles of arterial, collector and residential streets and alleys. The detail would also show the number of miles that are paved or unpaved and curbed or ditched.



The graph above illustrates the community's growth with new subdivisions increasing the average miles of streets per employee. While the new streets have a low initial maintenance cost, they do immediately impact street sweeping and snow removal efforts.

Again this year the City contracted the seal coating of an estimated 85 blocks in an effort to cover the entire City every 6 years which is the average life of a seal coat. City crews continue to asphalt surface patch in advance of the seal coating.

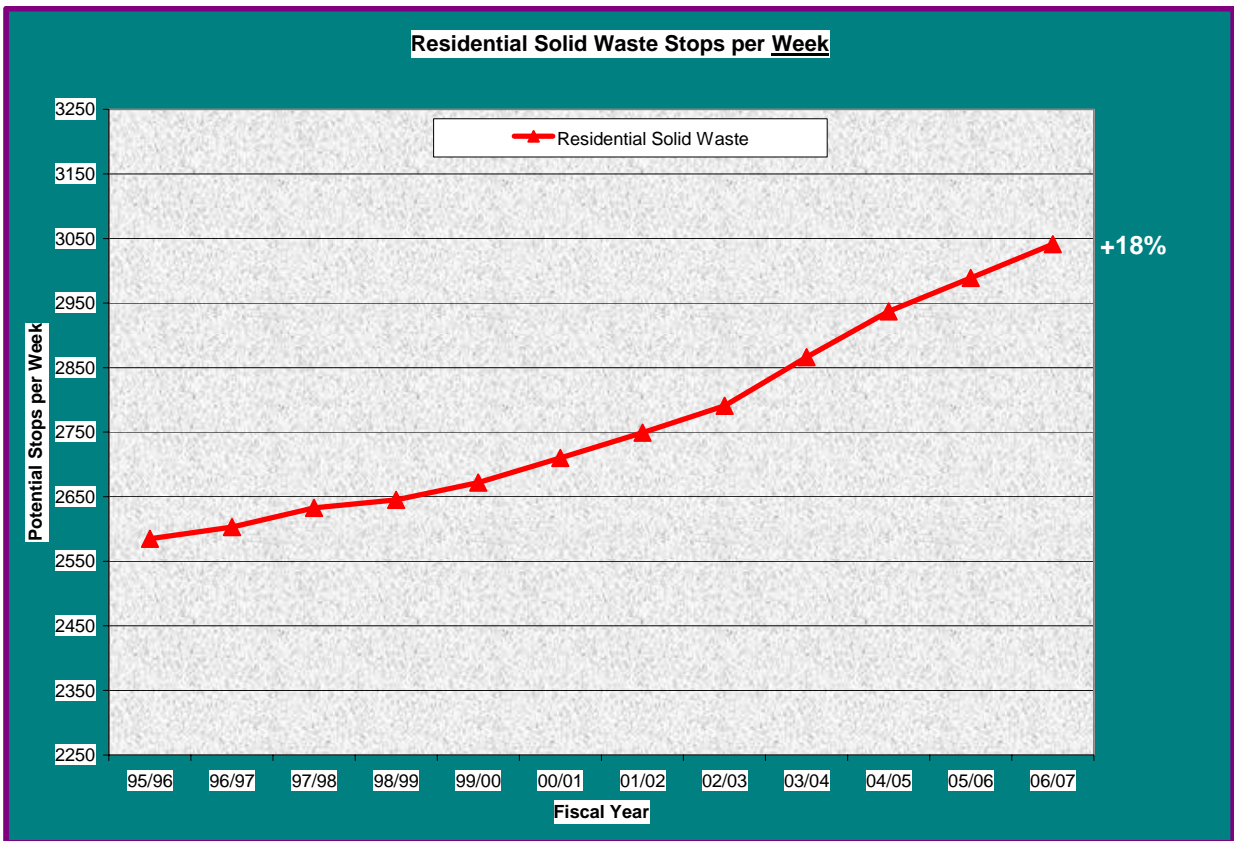
Maintenance efforts are directed to asphalt patching, seal coating, vegetation control, street sweeping, sign maintenance, and painting pavement markings. During the winter months the department is primarily responsible for snow removal.

## Looking to the Future

- The Public Works Facilities Needs Study remains a top priority because the existing complex is undersized, inefficient and a public safety concern with the proximity to the Recycling Center. A potential facility site in northwest Waverly is receiving renewed consideration and may resolve the question of where to site the complex.
- An active equipment replacement program will allow the Street Division to continue adapting to new technologies. A second tandem-axle dump truck and plow trucks with under body blades and v-boxes are being investigated and considered as part of future equipment replacement.

## Division 3 - Solid Waste/Recycling Division

The Bremer County Landfill officially closed October 1, 2007. The closure of the landfill resulted in the garbage being hauled to the Black Hawk County Landfill that is located off of Highway 21 south of Waterloo. The additional haul time and the increasing number of stops, resulting from new development, necessitated a change in the style of garbage truck used for residential collection.



Two semi-automated side-loading trucks were purchased for residential garbage collection. No additional staff is required for the change and the changes did not impact the current requirements and methods that customers use to dispose of garbage.

The yard waste and recycling programs remain very successful. Usage of the Yard Waste Site and Recycling Center is stable without significant changes in vehicle count or volume. Beginning in May 2007 the Recycling Center opened from 8:00 a.m.-noon every Saturday; previously the Recycling Center was only open on the first Saturday morning of the month.

### **Looking to the Future**

- The greatest challenge facing the City, is servicing the commercial customers with dumpsters. To compensate the City is promoting the use of commercial 1½ cubic yard containers that can be emptied with the new residential trucks.
- The City is also restructuring the fee-by-sticker system for residential customers. The City is providing citizens garbage containers that are compatible with the new trucks and eliminates the fee-by-garbage tag in exchange for a higher monthly base fee. Those with extra garbage or without a City container pay for a garbage tag.

### **Division 4 – Equipment Services Division**

This division is responsible for the routine maintenance and repairs of City vehicles. A five-year equipment replacement schedule is maintained allowing for the timely and economical replacement of vehicles and major items of equipment.

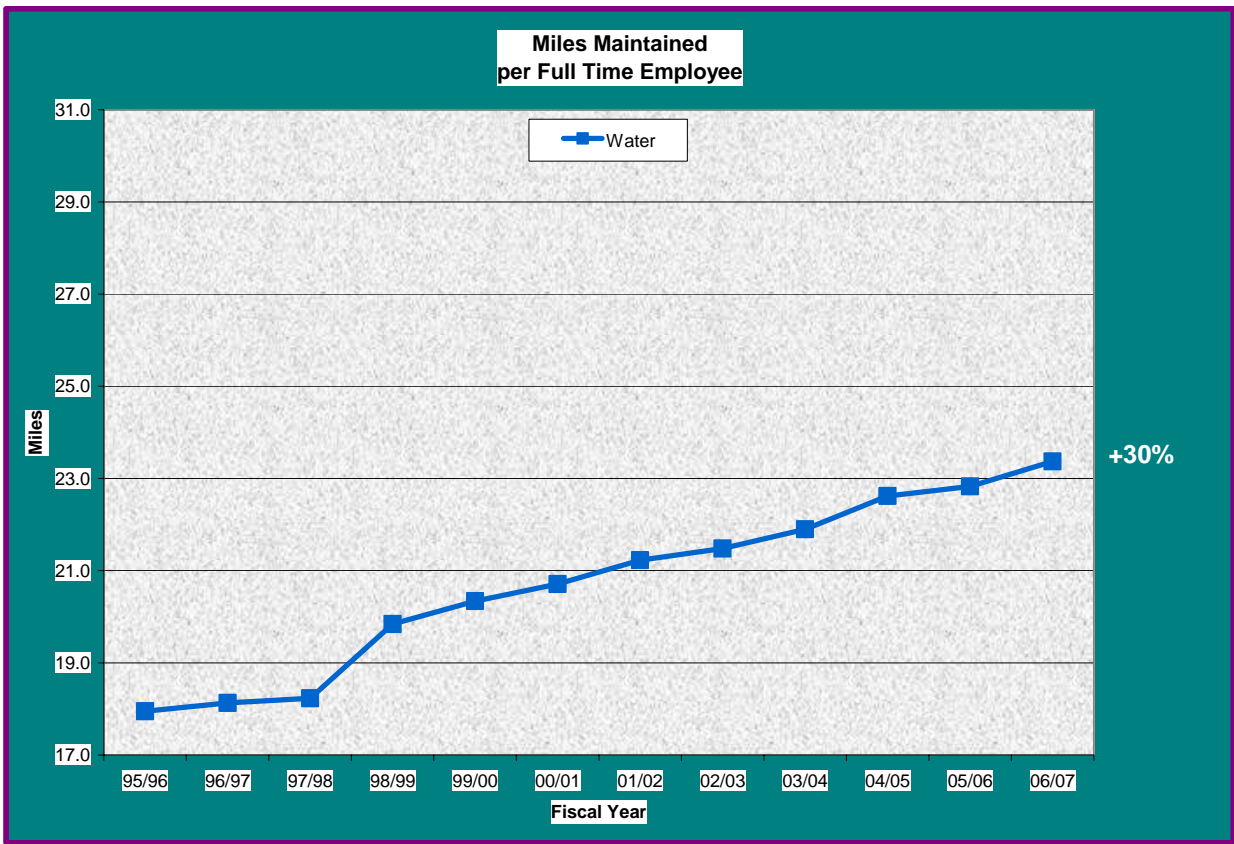
### **Looking to the Future**

- Many communities structure Equipment Services as an enterprise fund where the department is responsible for the purchase and routine maintenance of all motorized and large equipment. Equipment Services then leases equipment to each department within the City at an appropriate monthly rate. This arrangement allows for a more uniform and level budget for various departments within the City. This arrangement may work for Waverly.

### **Division 5 – Water Division**

The Water Division continues to monitor water quality and perform routine maintenance on valves, hydrants and water main leaks. The Water Division performed 1,164 Iowa One-Call locates.

On average 962,000 gallons of water per day were pumped with 82% of it accounted for through customer billing or known uses like hydrant flushing. The remaining 18% is likely lost through leaks. A leak detection program has helped reduce the unaccounted water by identifying targeted repair work. Our goal is to have over 80% accountability for the water pumped into the water distribution system.



This past year a variable frequency drive (VFD) was installed on Well #8. The VFD was paid for through Waverly Light and Power's key accounts program. The VFD has a lower electric demand and allows the motor to speed up as water demand warrants.

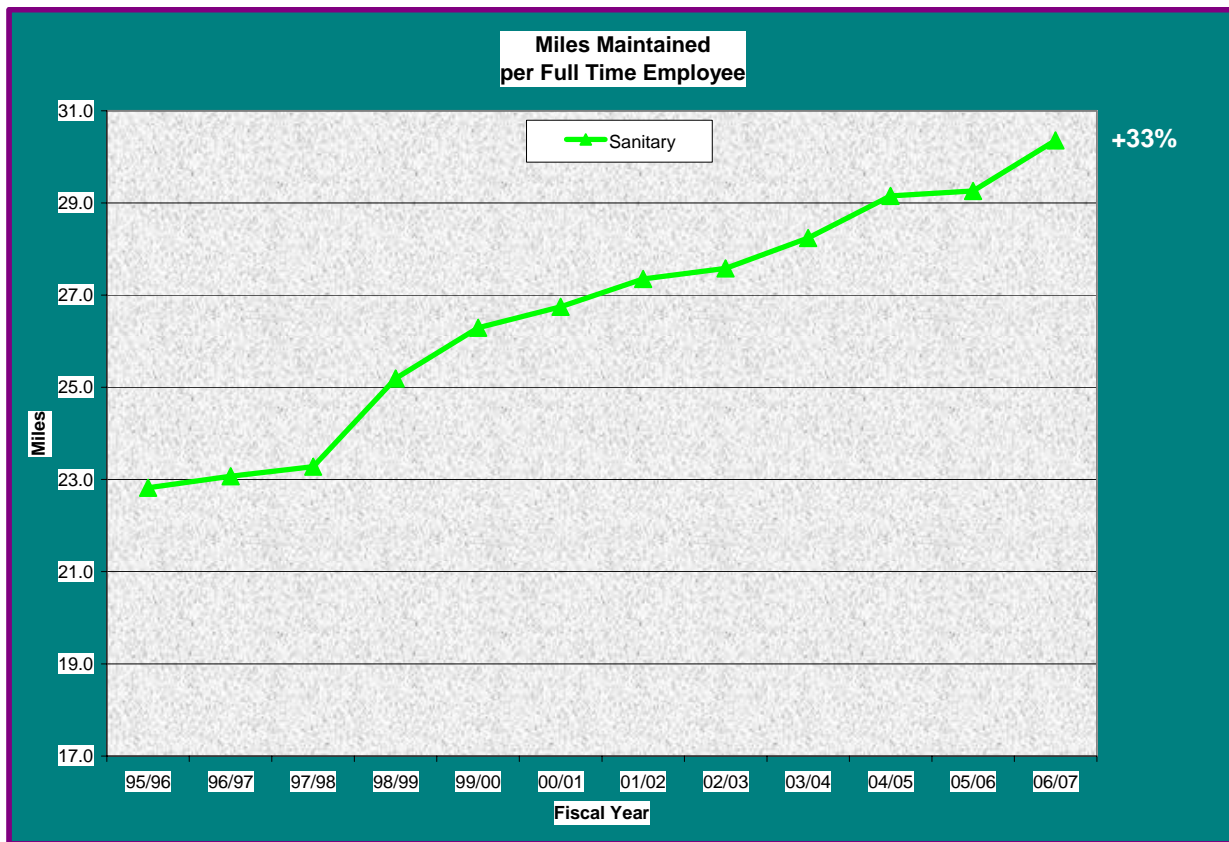
### Looking to the Future

- The SE Water Main Loop 2008 project is under design and scheduled for construction in the summer and fall of 2008. This project will add about 9,500 lineal feet on 12-inch main, a second high-zone river crossing and increase fire flows.
- St. Mary Catholic Church is constructing a new parish north of Waverly on Horton Road. This project will likely result in an annexation agreement and about ½-mile of water main extension.
- Well #5 should be converted to a variable frequency drive (VFD).
- Well # 6 and #7 should be programmed to only pump water at off-peak times (7am-7pm) to take advantage of the lower electric rate.

## Division 6 – Storm & Sanitary Sewer Maintenance Division

This division continued to primarily flush storm and sanitary sewer lines and performed 1,164 Iowa One Call locates. Additional work included catch basin and manhole repair, sewer taps, and the repair of sewer mains.

The Sanitary Sewer Capacity Analysis was completed and helps identify weaknesses within the existing system and the impact of future development on the system. The report determined that there are no “fatal flaws” within the existing system, but there are areas of concern identified for future upgrades.



### Looking to the Future

- Many communities in Iowa are creating a Storm Water Utility to finance the ongoing maintenance and construction of storm water infrastructure and control facilities. The City needs to consider the creation of a Storm Water Utility to address the growing financial requirements of maintaining and constructing storm water improvements.
- Sanitary sewers of concern identified in the Sanitary Sewer Capacity Analysis and aging lift stations need to be programmed for replacement in the coming years.

## **Division 7 – Water Pollution Control**

A consultant, WHKS & Co., was hired to design the next round of repairs and upgrades to the complex. Work will involve the replacement of the secondary digester cover and construction of facilities to disinfect the treated wastewater before it is discharged. The disinfection of the treated wastewater is necessary to meet changing Iowa DNR regulations. Work is scheduled to occur in the summer and fall of 2008.

### **Looking to the Future**

- Upon completion of the programmed 2008 work, a comprehensive update to the Wastewater Treatment Facility Plan should be undertaken. The updated WWTF Plan and the Sanitary Sewer Capacity Analysis should then be utilized together to develop the priorities for the next round of infrastructure repairs.

## **Division 8 – Engineering Division**

The Engineering Division continues to prepare plans and specifications for smaller scale projects. Inspection and administration of projects are performed on all sizes and types of work as the staffing schedule allows. The design and drafting of construction drawings are prepared by the City Engineer. The two engineering technicians in turn are concentrating on project monitoring, documentation and public relations. Consultants are utilized for large projects or design work requiring specialized expertise.

### **Looking to the Future**

- An intern could be hired to work on special projects, such as the development of a storm water utility.

## **Division 9 – Waverly Municipal Airport**

Cedar Valley Aviation is the fixed-based operator who manages the airport facility for the City. This past year saw the airport began concreting the floors in the tee hangar. Many of the tee hangars only have partial concrete floors.

Much discussion took place regarding the expansion and/or relocation of the Waverly Municipal Airport. A couple of sites near Waverly were identified suitable for a relocated airport and did not require the displacement of any dwellings or structures.

### **Looking to the Future**

- Seal cracks in the asphalt runway.
- Repair and patch the concrete apron.
- Concrete the floor of additional tee hangars.
- Renegotiate the FBO / Airport Manager contract that expires on October 31, 2008.

## **Conclusion**

As a department we continue to strive for excellence in community service and efficiency of operations. In the coming years we hope to see the infrastructure and operational recommendations implemented to better serve the citizens of Waverly, our customers, and meet the needs of a growing community.

The June 10, 2008 flood on the Cedar River will also keep staff busy assisting with the cleanup and repairing the public infrastructure well into the 2008-09 fiscal year. Additionally, the citizens and staff will have renewed discussion on ways to reduce or mitigate future flooding.

Respectfully submitted,

Michael J. Cherry, P.E.  
City Engineer/Director Public Works