

November 7, 2016
Mayor & City Council Members
City of Waverly

EXECUTIVE SUMMARY OF THE
2015-16
PUBLIC WORKS DEPARTMENT
ANNUAL REPORT

Highlights of the 2015-16 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.

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:

<u>Projects</u>	<u>Initiated</u>	<u>Finalized</u>	<u>Cost</u>
2 nd Avenue SW Reconstruction & Babcock Woods Trail Extension 2015	March 2014	Feb. 2016	\$ 244,074
Public Services Center for Operations & Disaster Response – Building	Sept. 2012	May 2016	4,324,700
Dry Run Creek Improvements 2014	July 2012	not final	-
Airport Runway Reconstruction 2014	May 2014	not final	-
2 nd Street NW Area Storm Sewer & Street Improvements	Oct. 2008	Sept. 2015	848,320
AmVets Area Riverbank Restoration 2015	June 2014	March 2016	137,490
Bituminous Seal Coat Program 2015	Feb. 2015	Aug. 2015	127,609
Citywide Ped Ramp Construction 2015	Jan. 2015	July 2015	88,831
Citywide Sidewalk Repairs 2015	June 2015	Dec. 2015	90,516
Waverly Dog Park Fencing	April 2014	April 2015	32,834
Waverly Dog Park – Parking Lot & Citywide Asphalt Patching	July 2015	July 2015	117,000
West Bremer Avenue Sidewalk Extension	March 2014	Oct. 2015	122,895
3 rd Street SE Bridge Repairs	Feb. 2016	not final	-
16 th Street SW Reconstruction 2016	Aug. 2015	Oct. 2016	350,000
Asphalt Patching – Spring 2016	May 2016	June 2016	13,035
Bituminous Seal Coat 2016	April 2016	not final	-
Citywide Ped Ramp Reconstruction 2016	Feb. 2016	July 2016	96,925

Projects (Cont'd)	Initiated	Finalized	Cost
Airport Land Acquisition	June 2012	not final	-
IA Hwy 3 (Bremer Ave.) Reconstruction	April 2016	not final	-
WPCF – Nutrient Reduction Feasibility Report	April 2016	not final	-
Cedar River Parkway (West) 2013	April 2013	Oct. 2015	3,469,258
Airport Mechanic's Room Insulation 2014	Nov. 2013	Oct. 2015	20,248

Total value of work **finalized** between July 2015 thru June 2016 **\$ 10,083,735**

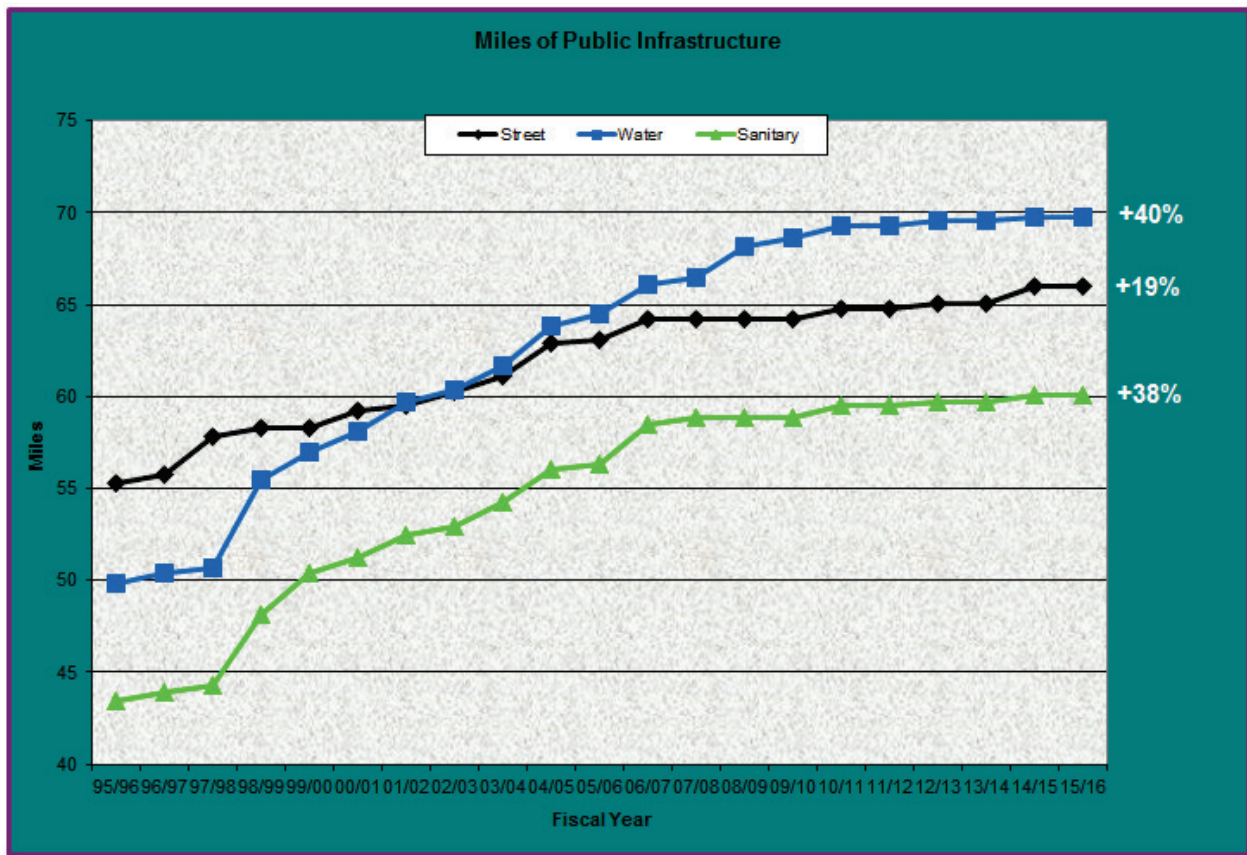
Subdivision w/ Public Infrastructure	Final Plat Approved	Public Improve. Accepted	Lots	Feet
Highpoint 2 nd Addition	Oct. 2015	not complete	15	1,142
Cedar Point 1 st Addition (commercial)	June 2016	not complete	4	350
Prairie Park 2 nd Addition	Jan. 2016	Nov. 2016	7	584
OMNI Development – Phase 1	Feb. 2016	July 2016	27	867
OMNI Development – Phase 2 (private street)	Feb. 2016	July 2016	8	n/a
Totals for July 2015 thru June 2016			<u>0</u>	<u>0</u>
Newly Accepted Streets			=	0.0 mi

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 2014-15 actual and the 2015-16 budgeted division expenditures were:

Division	2014-15 Actual	2015-16 Budget
Public Works Administration	\$ 231,680	\$ 238,863
Engineering	255,495	307,834
General Infrastructure Maintenance	337,117	331,568
Equipment Services	279,913	283,105
Street RUT (+ Transfer)	1,126,343	1,122,123
Water (Service, Misc., Int.)	1,232,950	1,399,562
Water Pollution Control (Service, Misc., Int.)	1,002,567	1,287,330
Sanitary & Storm Sewer Maintenance	199,441	234,147
Solid Waste	1,071,218	1,311,204
Airport	78,275	74,755
	\$ 5,814,999	\$ 6,590,491

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 FY15-16 annual audit.

The 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 last 20 years. 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 over three decades. 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 – 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 or review of construction drawings

are the responsibility of the City Engineer. Consultants continue to fulfill an important role and are utilized for large projects or to design work requiring specialized expertise.

Division 3 – General Infrastructure Maintenance

This division had previously been called “Streets General”.

A primary responsibility of the General Infrastructure Maintenance Division is to finance and/or inspect the following infrastructure:

- Inspect and perform routine maintenance on the dam.
- Pay for traffic signal maintenance.
- Inspect trail bridges every four years.
- Finance the USGS Cedar River Gage on Adams Parkway Bridge.
- Finance community wide street lighting, entrance signs and traffic signals.
- Finance uniforms and some training and conferences for employees in the Streets Division.

Additionally, the local property tax support of the Waverly Municipal Airport is shown as an expense and transfer of monies to the Airport Fund.

Division 4 – Equipment Services Division

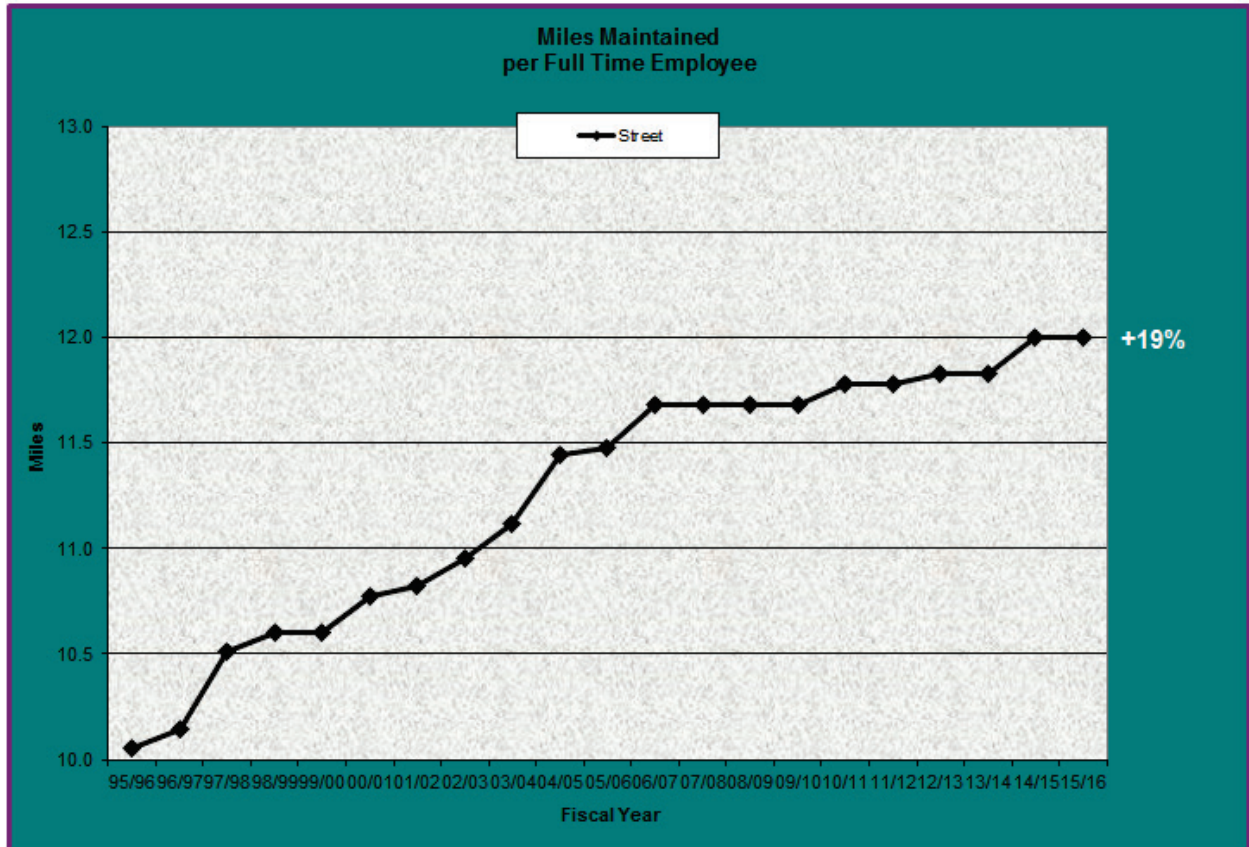
This division is responsible for the routine maintenance and repairs of City vehicles. A five-year equipment replacement schedule forecast is maintained allowing for the timely and economical replacement of vehicles and major items of equipment.

Looking to the Future

- Continuing education is important to staying knowledgeable on vehicle technology advances.

Division 5 – Street - RUT Division

The City owns 66.0 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 75.0 total miles, the City is responsible for maintaining 69.0 miles. In the fiscal year 2015-16 the City officially accepted 0.0 miles of new streets that developers built. 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 100 blocks in an effort to cover the entire City every 7 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 management, street sweeping, sign maintenance, and painting pavement markings. During the winter months the department is primarily responsible for snow removal, tree trimming and removal of ash trees from the public right-of-ways.

Looking to the Future

- Vegetation management of roadsides, detention basins, trees with the right-of-way, and open channel waterways is adversely impacting core services related to repairing and maintaining pavements, signage, etc.

Division 6 – 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 3,568 Iowa One-Call locates for water mains, sanitary sewer and storm sewers. This year the number of locates were nearly triple the average annual rate due to Waverly Utilities installing a citywide internet/cable/phone system.

On average 966,307 gallons of water per day were pumped with 85% of it accounted for through customer billing or known uses like hydrant flushing. The remaining 14% 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.

In 2013 the City installed (ERTs) electronic remote transmitters on approximately 4,000 water meters.

Looking to the Future

- Replacement and installation of approximately two miles of water main along Bremer Avenue from 20th Street West to 8th Street East. Work will be performed as part of the Iowa DOT's Iowa Highway 3 Reconstruction project.
- Completion of the Public Services Center for Operations & Disaster Response final phase in 2020 remains a top priority and allows for the relocation of the Water and Line Maintenance Divisions.

Division 7 – Water Pollution Control

A consultant, WHKS & Co., was hired to perform a, Iowa DNR required nutrient reduction strategy study. Work is ongoing and scheduled to be completed and submitted to the Iowa DNR in December 2016.

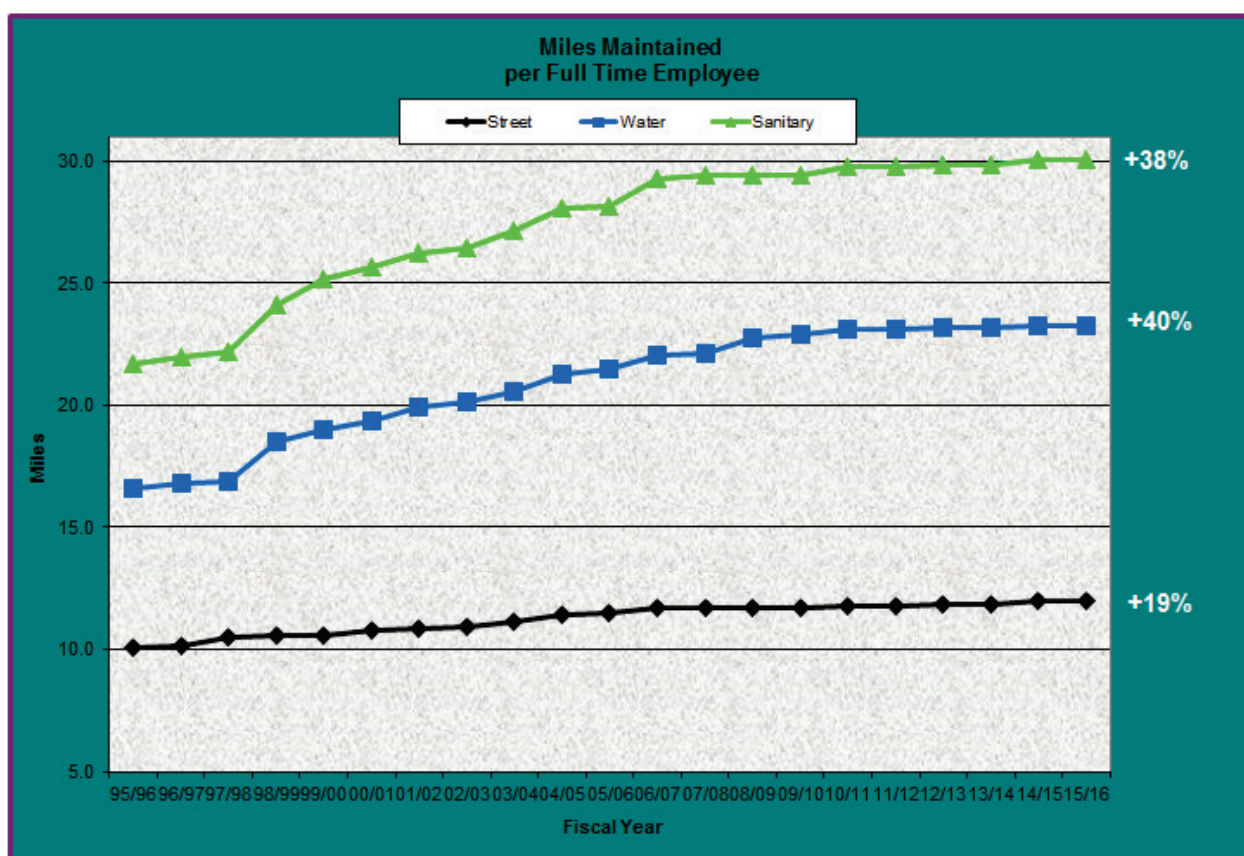
Looking to the Future

- In the Fall of 2012 WHKS & Co. performed a “risk assessment” for the trickling filters to estimate the remaining life and determine the likelihood and consequence of a catastrophic failure of the plastic growth media. Replacement of the trickling filters is costly and necessary, but the Study showed that their replacement can be scheduled to maximize their useful life without jeopardizing operations. The trickling filter risk assessment and nutrient reduction strategy study are being used to develop the priorities for the next round of infrastructure repairs in 2020 at the WPC Facility.

Division 8 – Storm & Sanitary Sewer Line Maintenance Division

This division continued to primarily maintain, clean and televise sanitary and storm sewer lines. Starting in March 2012 the Water Division started performing the utility locates. Additional work included catch basin and manhole repair, sewer taps, and the repair of sewer mains.

The Sanitary Sewer Capacity Analysis was completed in 2012 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.

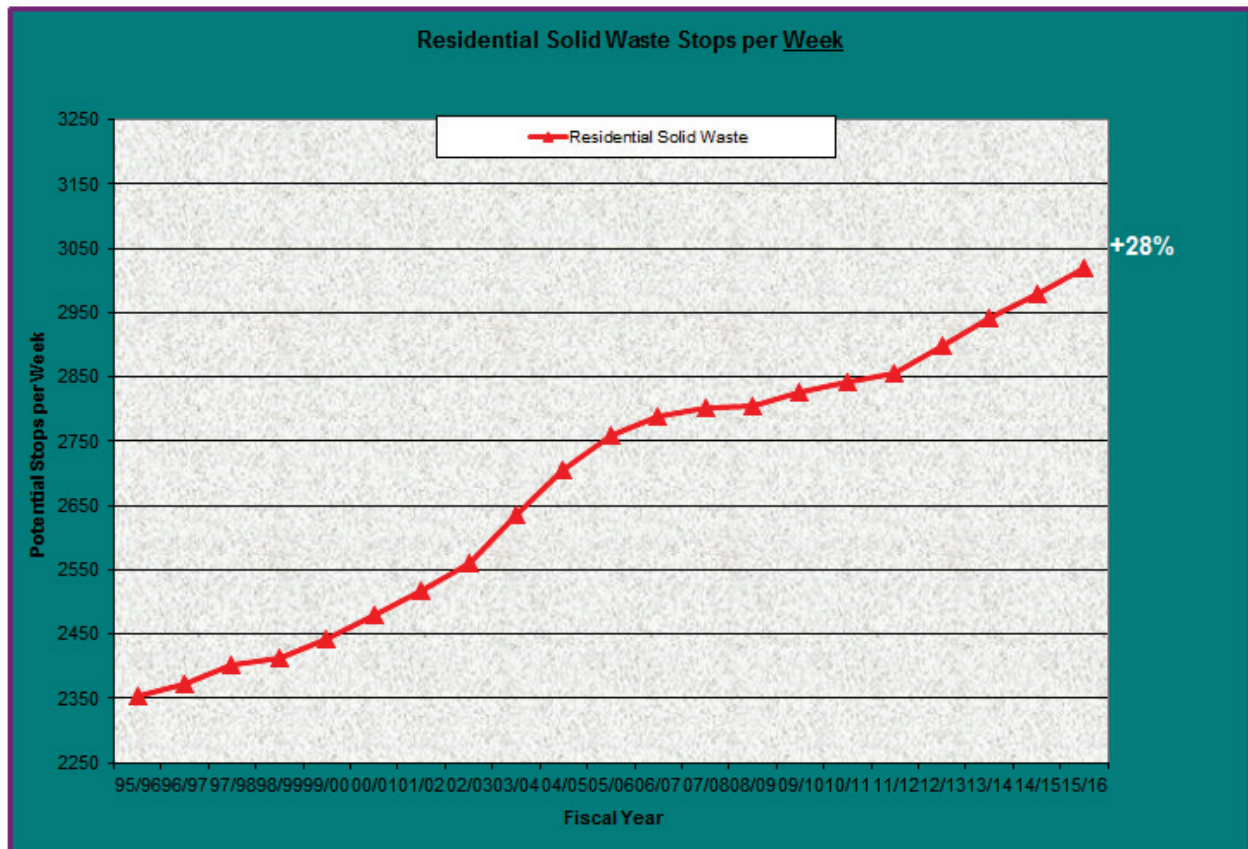


Looking to the Future

- 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.
- Maintaining an acceptable 7-year inspection, cleaning and televising have not been achieved for many years. Core duties and responsibilities are being reassessed to achieve the 7-year schedule. Manhole and storm

intake fixture adjustments are now a core function of the Streets Division along with maintaining ditches and detention basins.

Division 9 - 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.

In the spring of 2016 the two semi-automated side-loading trucks (purchased in 2007) were replaced with fully automated trucks for residential garbage collection. No additional staff was required for the change but the change did require all residents to use city supplied garbage containers.

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 April 2010 the Recycling Center started opening every Saturday from 8:00 a.m. – 4:00 p.m. Previously it was open only the first Saturday morning of each month. During the week the Recycling Center is open from 7:00 a.m. – 5:30 p.m.

In April of 2014 the City began commingled curbside collection of recyclables.

Looking to the Future

- In the coming years, as the community continues to grow, the volume of commercial waste (dumpsters) may exceed the capacity of the existing resources. Options would include adding a commercial truck and additional personnel or allowing private haulers cover the additional accounts.
- The processing and accumulation of wood mulch remains a concern. The additional amount is likely the result from the removal of ash trees. This past summer wood mulch delivery was made available to rural residents near Waverly in an effort to draw down the stockpile.

Division 10 – Waverly Municipal Airport

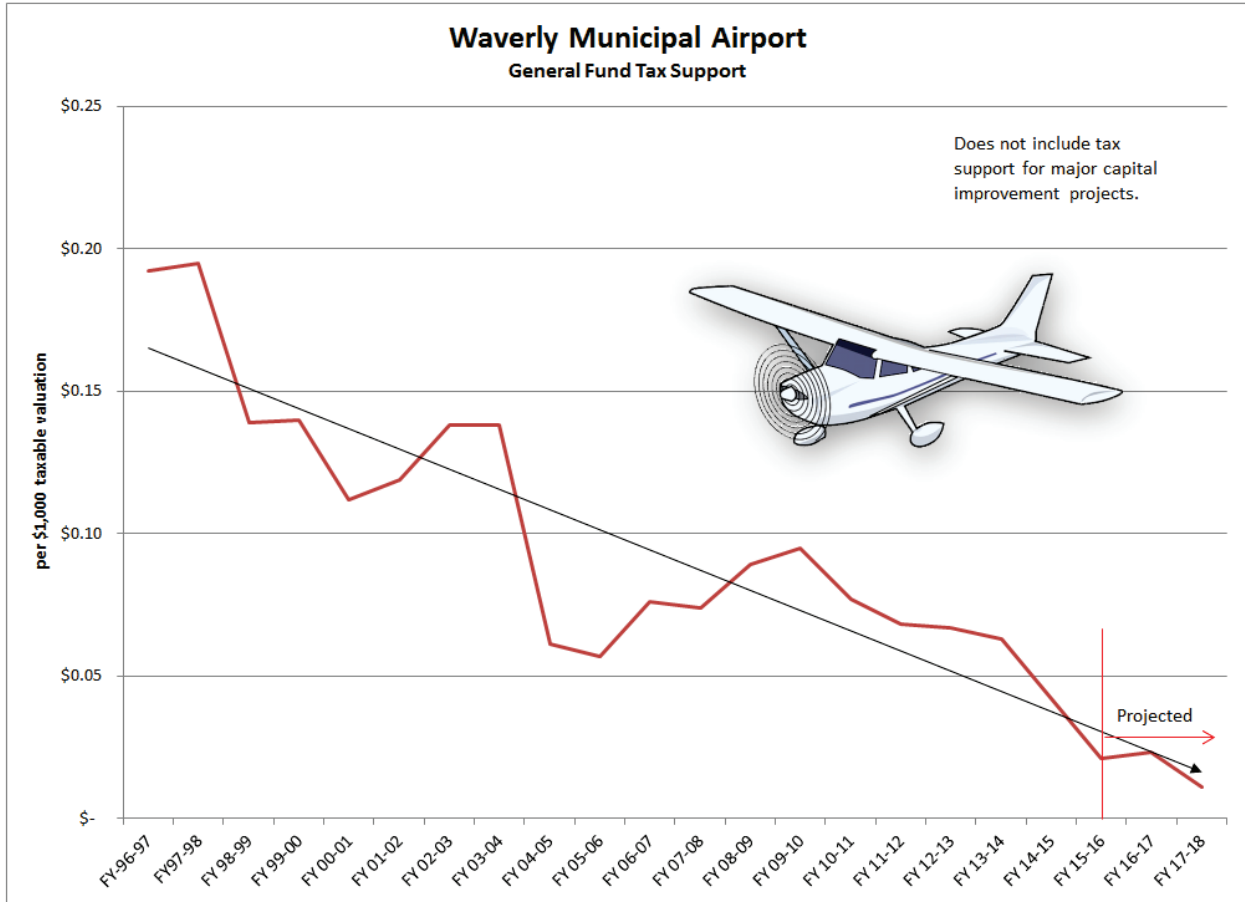
Cedar Valley Aviation is the fixed-based operator who manages the airport facility for the City. In recent years projects were completed to maintain and repair the runway apron area, construct a new entrance road and parking facilities. In the spring of 2016 the 11/29 Runway and lighting system was totally rebuilt.

Much discussion continues to take place regarding the expansion of the runway safety area and extension of the landing strip at the Waverly Municipal Airport. Work is on-going to acquire the remaining two parcels. Acquisition of the remaining parcels is necessary to allow the runway extension.

The annual property tax support for the Airport continues to decrease and by the year 2020 the routine operations and maintenance of the facility may be self-sufficient. Major capital projects would continue to need the City's financial support.

Looking to the Future

- Acquire the remaining land for FAA compliance with the runway safety area.
- Extend runway 400' to the east.
- Reface/replace insulation in bulk hangar.
- Relocate airport entrance sign.
- Allow for private hangar construction.
- Renegotiate the FBO / Airport Manager contract that expires on October 31, 2018.



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.

Respectfully submitted,

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

City of Waverly
Department of Public Works
FY 2015-16

ADMINISTRATION

The Administration consists of the Director and Office Coordinator. The major functions related to Administration are direction of present and future work programs, budget preparation and control, centralized record maintenance, inter/intra departmental coordination, billing and purchasing, and problem solving relevant to personnel and public relations. All of these areas relate to the ten Divisions of the Public Works Department (Administration, Engineering, General Infrastructure Maintenance, Equipment Services, Streets-RUT, Water, Water Pollution Control, Storm & Sanitary Sewer, Solid Waste, & Airport).

We utilize the City's web site (www.waverlyia.com), Cable 82 TV announcements, newspaper articles and releases, radio announcements, Facebook, and personal communication to inform the citizens of Waverly pertaining to the work performed by our department, when and where the work is to be accomplished, and the priorities with which work will be performed.

City of Waverly
Department of Public Works
FY 2015-16

ENGINEERING

The Engineering Division oversees all public works improvements, which include designs, inspections, surveys, and final certification of projects.

Various types of work include the following:

Projects – Sewer, Water, Street, Subdivisions

Planning
Design
Inspection
Project Administration
Review

Mapping

Water
Storm Sewer
Sanitary Sewer
Streets
Subdivisions
Zoning

PUBLIC IMPROVEMENT PROJECTS

“Total Cost” includes all pay apps, invoices & employee charges.

2nd Avenue SW Reconstruction and Babcock Woods Trail Extension 2015

Initiated: March 2014
Location: 2nd Avenue SW Recon -- 10th Street SW to 4th Street SW
Babcock Woods Trail Ext. – Red Cedar Park to Babcock Woods
Description: Reconstruction of 2nd Avenue SW and extension new asphalt trail. These two projects were bid under one construction contract in order to use the asphalt millings from 2nd Avenue SW as the base material for the new trail.
Engineer: WHKS & Co., Mason City, Iowa (design only)
Contractor: Heartland Asphalt, Mason City, Iowa
Total Cost: 2nd Avenue SW Recon -- \$668,357
Babcock Woods Trail Ext. -- \$244,074
Finalized: February 2016 (*See attached final agenda memo for more info.*)

Public Services Center for Operations & Disaster Response – Building

Initiated: September 2012
Location: 2900 5th Avenue NW
Description: Construction of new Public Services building.
Architect: Design Alliance, Waukee, Iowa
Contractor: Peters Construction, Waterloo, Iowa
Total Cost: \$4,324,700 (Includes \$376,502 for the Site Grading construction cost that was finalized Dec. 2014)
Finalized: May 2016 (*See attached final agenda memo for more info.*)

Dry Run Creek Improvements 2014

Initiated: July 2012
Location: 7th Avenue SW to 6th Avenue NW
Description: Reconstruction of Dry Run Creek to mitigate future flooding in northwest and southwest Waverly; reduce or eliminate flood insurance; revitalize and redevelop historical neighborhoods.
Engineer: WHKS & Co., Mason City, Iowa (design & construction admin.)
Contractor: Peterson Contractors, Inc., Reinbeck, Iowa
Total Cost: \$
Finalized: not final

Airport Runway Reconstruction 2014

Initiated: May 2014
Location: Waverly Municipal Airport
Description: Reconstruction of runway.
Engineer: McClure Engineering, Clive, Iowa
Contractor: Concrete Foundations, Inc., New Hampton, Iowa
Total Cost: \$
Finalized: not final

2nd Street NW Area Storm Sewer & Street Improvements

Initiated: October 2008
Location: 2nd Street NW from W. Bremer to 3rd Avenue NW and 1st Avenue NW from 2nd Street NW to 1st Street NW
Description: Construction of new storm sewer due to the addition of St. Paul's Church over existing storm sewer under 2nd Avenue NW (between 1st St. & 2nd St. NW). Both 2nd Street NW & 1st Avenue NW were reconstructed and paved.
Engineer: VJ Engineering, Cedar Falls, Iowa
Contractor: Denver Underground & Grading, Denver, Iowa
Total Cost: \$848,320
Finalized: September 2015 *(See attached final agenda memo for more info.)*

AmVets Area Riverbank Restoration 2015

Initiated: June 2014
Location: Riverbank of old AmVets site (east of 3rd Avenue SE)
Description: Restoration of 600 feet of the Cedar River bank.
Engineer: City
Contractor: Skyline Construction, Decorah, Iowa
Total Cost: \$137,490
Finalized: March 2016 *(See attached final agenda memo for more info.)*

Bituminous Seal Coat Program 2015

Initiated: February 2015
Location: various
Description: Seal coating of approximately 100 City blocks.
Engineer: City
Contractor: Blacktop Services, Humbolt, Iowa
Total Cost: \$127,609
Finalized: August 2015 *(See attached final agenda memo for more info.)*

Citywide Ped Ramp Construction 2015

Initiated: January 2015
Location: Northeast Waverly
Description: Construction of pedestrian ramps in Zone 5 prior to the Citywide Sidewalk Repair Program
Engineer: City
Contractor: Boulder Contracting, Grundy Center, Iowa
Total Cost: \$88,831
Finalized: July 2015 *(See attached final agenda memo for more info.)*

Citywide Sidewalk Repairs 2015

Initiated: June 2015
Location: Northeast Waverly
Description: Reconstruction of sidewalk in Zone 5 of the Sidewalk Repair Program
Engineer: City
Contractor: Feldman Concrete, Dyersville, Iowa
Total Cost: \$90,516
Finalized: December 2015 *(See attached final agenda memo for more info.)*

Waverly Dog Park Fencing

Initiated: April 2014
Location: East of WPC Plant at 1401 8th Street SE
Description: Installed fencing for new dog park.
Engineer: City
Contractor: D & N Fencing, Cedar Rapids, Iowa
Total Cost: \$32,834 (fencing only)
Finalized: April 2015 *(See attached final agenda memo for more info.)*

Waverly Dog Park – Parking Lot and Citywide Asphalt Patching – Spring 2015

Initiated: July 2015
Location: East of WPC Plant at 1401 8th Street SE
Description: Two paving projects under one contract. Paving of parking lot for the new dog park and paving of utility street cuts.
Engineer: City
Contractor: Blacktop Services, Humbolt, Iowa
Total Cost: \$117,000 (includes drinking fountains and additional amenities)
Finalized: July 2015 *(See attached final agenda memo for more info.)*

West Bremer Avenue Sidewalk Extension

Initiated: March 2014
Location: South side of West Bremer Avenue from 16th Street SW to 20th St. SW
Description: Construction of 10-foot sidewalk/trail along north edge of Lutheran Services in Iowa (LSI). LSI contributed \$23,000 towards project.
Engineer: WHKS & Co., Mason City, Iowa
Contractor: Boulder Contracting, Grundy Center, Iowa
Total Cost: \$122,895
Finalized: October 2015 *(See attached final agenda memo for more info.)*

3rd Street SE Bridge Repairs

Initiated: February 2016
Location: 3rd Street SE
Description: After the 2015 annual bridge inspection by WHKS & Co., the bridge was closed to vehicles & pedestrians. Bridge needs total replacement of the deck support system and significant work to the concrete piers and abutments, along with repainting of trusses. Council approved the repair option in lieu of a new bridge. Letting is scheduled for February 2017.
Engineer: WHKS & Co., Mason City, Iowa (VJ Eng. of Cedar Falls performed a review inspection of the bridge after it was closed.)
Contractor:
Total Cost: \$
Finalized: not final

16th Street SW Reconstruction 2016

Initiated: August 2015
Location: Between 4th Avenue SW and Meadow View Lane
Description: Total reconstruction with some new intakes and curb & gutter repairs.
Engineer: WHKS & Co., Mason City, Iowa
Contractor: Heartland Asphalt, Mason City, Iowa
Total Cost: \$350,000
Finalized: October 2016 *(See attached final agenda memo for more info.)*

Asphalt Patching – Spring 2016

Initiated: May 2016
Location: various locations
Description: Repair of utility cuts in asphalt paved streets.
Engineer: City
Contractor: Kluesner Construction, Farley, Iowa
Total Cost: \$13,035
Finalized: June 2016

Bituminous Seal Coat 2016

Initiated: April 2016
Location: NE Waverly, Murphy Add., Hinds Add., etc.
Description: Seal coating of approximately 100 City blocks.
Engineer: City
Contractor: Blacktop Services Co., Humbolt, Iowa
Total Cost: \$
Finalized: not final

Citywide Ped Ramp Reconstruction 2016

Initiated: February 2016
Location: Zone 6 (southeast Waverly, including a small portion of northeast)
Description: Reconstruction of pedestrian ramps in Zone 6 as part of the Sidewalk Repair Program.
Engineer: City
Contractor: Feldman Concrete, Dyersville, Iowa
Total Cost: \$96,925
Finalized: July 2016 *(See attached final agenda memo for more info.)*

Airport Land Acquisition

Initiated: June 2012
Location: 1710 35th Street NW
Description: This is a land acquisition project for the expansion of the runway safety zone and extension of the runway.
Engineer: McClure Engineering Co.
Cost: \$
Finalized: not final

IA Highway 3 (Bremer Avenue) Reconstruction 2017 & 2018

Initiated: April 2016
Location: Bremer Avenue from 8th Street NE to 20th Street NW
Description: The Iowa DOT will reconstruct IA Highway 3 (Bremer Avenue) through Waverly in 2017 & 2018. The City of Waverly will also have a new water main installed at the same time.
Engineer: WHKS & Co, Mason City, Iowa (City's water main and streetscaping)
Contractor:
Total Cost: \$
Finalized: not final

WPCF – Nutrient Reduction Feasibility Report

Initiated: April 2016
Location: Wastewater Facility
Description: IDNR is requiring communities with a major wastewater facility (includes Waverly) to comply with its Iowa Nutrient Reduction Strategy. WHKS will prepare a report detailing the potential changes to the City's facility in order to meet the proposed effluent limits of 10 mg/L total nitrogen and 1 mg/L total phosphorus.
Engineer: WHKS & Co., Mason City, Iowa
Total Cost: \$
Finalized: not final

Cedar River Parkway (West) 2013

Initiated: April 2013
Location: From 4th Street SW to 8th Street NE
Description: Construction of a new road (Phase 1 of the new corridor that will eventually extend across the Cedar River to East Bremer Avenue)
Engineer: Stanley Consultants, Des Moines, Iowa
Contractor: Peterson Contractors, Inc., Reinbeck, Iowa
Cost: \$3,469,258
Finalized: October 2015 (*See attached final agenda memo for more info.*)

Airport Mechanic's Room Insulation 2014

Initiated: November 2013
Location: Waverly Municipal Airport
Description: Insulation was installed in the Mechanic's Room at the Airport by Prairie Construction. Prairie's work was poorly done and was rejected by Council. New contractor, Kinzler Construction,
Engineer: McClure Engineering, Clive, Iowa
Contractor: ~~Prairie Construction, Waverly~~ Kinzler Construction, Ames, Iowa
Cost: \$20,248
Finalized: October 2015 (*See attached final agenda memo for more info.*)

SUBDIVISIONS

Highpoint 2nd Addition

Approved: Construction docs approved October 2015
Location: Extension 2nd Avenue NE to 10th Street SE
Description: Project consists of the extension of street, water and sewer improvements.
Engineer: Design – Larry Buchholz, Cedar Falls, Iowa
Developer: Waverly Real Estate, LLC (Steve Darrah) of Waverly, Iowa
Accepted: not completed

Cedar Point 1st Addition (commercial)

Approved: Construction docs approved June 2016
Location: Extension of Pine Street
Description: Project consists of the extension of street, water and sewer improvements.
Engineer: Design – Larry Buchholz, Cedar Falls, Iowa
Developer: GLSW, LLC of Denver, Iowa
Accepted: November 2016

Prairie Park 2nd Addition

Approved: Construction docs approved June 2016
Location: Extension of Tumbleweed Trail
Description: Project consists of the extension of street, water and sewer improvements.
Engineer: Design – Fehr Graham, West Union, Iowa
Developer: BNKD, Inc., Waverly, Iowa
Accepted: November 2016

OMNI Development – Phase 1

Approved: Construction docs approved February 2016
Location: Extension of 1st Street SE
Description: Project consists of the extension of street, water and sewer improvements.
Engineer: Design – Helland Engineering & Surveying, Cedar Falls, Iowa
Developer: OMNI Development, LLC and Twin B, LLC, of Waterloo, Iowa
Accepted: July 2016

OMNI Development – Phase 2

Approved: Construction docs approved February 2016
Location: Extension off of 13th Avenue SW called Vista Circle (private street)
Description: Project consists of water and sewer improvements.
Engineer: Design – Helland Engineering & Surveying, Cedar Falls, Iowa
Developer: OMNI Development, LLC and Twin B, LLC, of Waterloo, Iowa
Accepted: July 2016

Final Agenda Memos from Public Improvement Projects

THE CITY OF
WAVERLY
 AGENDA MEMORANDUM
 City Council Meeting
 February 8, 2016

SUBJECT: 2nd Avenue SW Reconstruction & Babcock Woods Trail Extension 2015 – Finalize Project

Prepared By: Mike Cherry, Director of Public Works & City Engineer

Recommended City Council Action

- Accept the **2nd Avenue SW Reconstruction project** (from near 4th Street SW to 10th Street SW) & the **Babcock Woods Trail Extension project** (from Red Cedar Park to Babcock Woods) project as complete.
- Approve Pay Estimate No. 9 in the amount of \$46,006.44 as the final payment to Heartland Asphalt of Mason City, Iowa.

Summary Statement

Heartland Asphalt of Mason City, Iowa, has completed the 2nd Avenue SW Reconstruction project (from near 4th Street SW to 10th Street SW) & the Babcock Woods Trail Extension project (from Red Cedar Park to Babcock Woods) project in accordance with the contract documents. The total cost of the completed work is \$770,004.39.

Expenditure Required – 2nd Avenue SW Reconstruction

Design, WHKS – N.T.E.....	\$	55,348
Construction – Heartland (Proportioned).....		574,509
Project Administration and Inspection, City (Estimate).....		38,500
Total Cost of the Project		\$ 668,357

Source of Funds – 2nd Avenue SW Reconstruction

LOST FY 2014-15.....	\$	350,000
Federal Aid FY 2014-15.....		250,000
LOST FY 2015-16.....		70,000
Total Financing for the Project		\$ 670,000

Expenditure Required – Babcock Woods Trail Extension

Design, WHKS – N.T.E.....	\$	34,079
Construction - Heartland's Bid (Proportioned).....		195,495
Project Administration and Inspection, City (Estimate).....		14,500
Total Cost of the Project		\$ 244,074

Source of Funds – Babcock Woods Trail Extension

CIP FY 2013-14, 2014-15 & 2015-16.....	\$	87,586
Federal Aid FY 2014-15.....		125,000
LOST FY 2015-16 (8 th St SE: rock excavation, culvert, curb & gutter).....		32,500
Total Financing for the Project		\$ 245,086

Policy

The two proposed 2015 improvement projects are consistent with one or more of the following planning documents:

- Waverly Strategic Planning Report – November 21, 2013
- City Council’s Goal Setting – July 2013
- Waverly Comprehensive Plan Update – October 24, 2011
- Parks Open Space Plan – April 28, 2011

Project Concern

The final construction cost for rebuilding 2nd Avenue SW is about \$70,000 higher than the original budget estimate. Additionally, the Babcock Woods Trail Extension cost is about \$32,000 higher than the original budget estimate.

Alternative

Additional LOST funding was identified in the FY 2015-16 Budget to account for the additional cost of 2nd Avenue SW. Additional LOST funding can also be used for culvert, rock excavation and curb work along 8th Street SE.

Background Information

The 2nd Avenue SW Reconstruction project is part of the City’s five-year capital improvement plan for reconstruction of collector and high traffic streets. This project will reconstruct six blocks of 2nd Avenue SW from 4th Street SW to 10th Street SW.

The Babcock Woods Trail Extension project is a critical section of Waverly’s intra-city trail system that connects park lands. The asphalt paved trail extension will begin at the southwest corner of Red Cedar Park (near the Soccer Complex) and parallel the roadway until it ends at the Babcock Woods parking lot on the east side of 11th Street SE. Bremer County’s Babcock Woods Park contains a network of soft trails for summer and winter activities which include hiking, snowshoeing and cross-country skiing. Babcock Woods Park also includes an observation blind for bird watching.

March 17, 2014	Approve PSA for 2015 Improvement Projects
March 17, 2014	Approve Dedication for Public Use – Babcock Woods Trail Extension
Aug. 18, 2014	Approve IDOT Federal-aid Funding Agreement
CY 2014	Design
Dec. 15, 2014	Set Public Hearing Date
Jan. 5, 2015	Hold Public Hearing
Jan. 21, 2015	IDOT Letting for the 2 nd Avenue SW Reconstruction & Babcock Woods Trail Extension
Feb. 16, 2015	Award Contract
March 16, 2015	Approve Contract Documents
Mar 30 to July 17, 2015	Construction Window
March 16, 2015	Approve Contract Documents
February 8, 2016	Finalize Project

Respectfully submitted,

Mike Cherry
City Engineer & Director of Public Works

Attachments:

- Statement of Project Completion
- Pay Application No. 9 - FINAL



AGENDA MEMORANDUM
City Council Meeting
May 16, 2016

SUBJECT: Public Services Center for Operations & Disaster Response
Finalize Building Project

Prepared By: Mike Cherry, Director of Public Works & City Engineer

Recommended City Council Action

Accept the Public Services Center for Operations & Disaster Response Building Project as complete.
Approve Pay Application No. 12, in the amount of \$176,246.49, as the final payment to Peters Construction Corporation of Waterloo, Iowa.

Summary Statement

Peters Construction Corporation has completed the Public Services Center for Operations & Disaster Response Building Project in accordance with the contract documents and provided all the warranty and closing documents. Design Alliance, the project's architect and administrator recommends accepting the project and releasing the retainage.

Expenditure Required

Table with 2 columns: Description and Amount. Rows include Architectural Services, Furniture Bid Package, Option C Construction (Site Grading, Building Project, etc.), Builders Risk Insurance, Material Testing & Inspection, Waverly Utilities, Communications System, Computer, Office Furniture, Miscellaneous Furnishings, and Contract Administration. Total Cost of the Project: \$ 4,324,700

Source of Funds

Sewer Fund Revenue Bond FY2014-15	\$ 2,000,000
Water Fund Revenue Bond FY2014-15	1,817,650
TIF Cash FY2015-16	200,000
GO Bond FY2014-15	413,279
RUT FY2014-15	100,000
Waverly Utilities, Key Accounts for Efficient Lighting and Appliances	<u>36,510</u>
Total Financing for the Project	\$ 4,567,439

Policy

The Public Services Center for Operations & Disaster Response project follows recommendations cited in the following documents for the construction and maintenance of critical public facilities:

- Waverly Strategic Planning Report – November 12, 2013
- Waverly Comprehensive Plan Update – October 24, 2011

Project Concern

None. The project’s fund balance is in excess of \$200,000.

Alternatives

N/A.

Background Information

Previously on September 23, 2013, Design Alliance presented multiple phasing options for construction of a new Public Services Center for Operations & Disaster Response. Phasing Option C was chosen to construct the Public Services Administration office, Equipment Services, Solid Waste, Water and Sewer Line Maintenance Divisions. The Streets Division would move and immediately relocate to the new site occupying the building area designated for the Water and Sewer Line Maintenance Divisions. The second phase would be to construct the permanent building for the Streets Division allowing the Water and Sewer Line Maintenance Divisions to relocate.

The initial phase allows for immediate on-site management of the Recycling Center and Yard Waste Site operations. Additionally, the existing 1953 Public Services facilities will be utilized for off-season equipment storage.

September 17, 2012	Council’s CIP Planning Session – Council Requests Phasing Options
October 22, 2012	Staff Reviews Phasing Options with Council
June 3, 2013	Council Approves Formal Public Service Phasing Plan Study by Design Alliance
Summer-Fall 2013	Formal Phasing Study by Design Alliance
September 23, 2013	Review Formal Phasing Options Study with Council, (Option C Approved)
February 3, 2014	Council Approves Architectural Agreement for Final Design for a Phased Project
June 2, 2014	Set Public Hearing Date, Site Grading Project
June 16, 2014	Hold Public Hearing - Site Grading Project
June 17, 2014	Bid Opening - Site Grading Project

July 7, 2014.....Award - Site Grading Project
August 4, 2014.....Approve Contract Documents - Site Grading Project
November 17, 2014.....Set Public Hearing Date - Building Package
December 1, 2014.....Finalize - Site Grading Project
December 1, 2014.....Hold Public Hearing - Building Package
December 16, 2014.....Bid Opening - Building Package
January 5, 2015.....Award - Building Package
January 19, 2015.....Approve Contract Documents - Building Package
January 19, 2015.....Approve Construction Testing Services Agreement
September 14, 2015.....Approve Purchase of Office Furniture
October 19, 2015.....Approve Change Order No. 1 (Building Project)
October 19, 2015.....Approve Change Order No. 1 (Furniture Package)
October 19, 2015.....Approve Amendment No. 2 Professional Services Agreement
November 16, 2015.....Approve Purchase & Installation of Communications System
March – November 14, 2015.....Construction of the Public Services Center – Building Package
February 8, 2016.....Approve Change Order No. 2 (Building Project)
May 16, 2016.....Finalize Project

Respectfully submitted,

James Bronner
City Administrator

Attachment

Final Pay Application



AGENDA MEMORANDUM
City Council Meeting
September 21, 2015

SUBJECT: Second Street NW Area Storm Sewer & Street Improvements (St. Paul's Church Area) – Finalize Project

Prepared By: Mike Cherry, Director of Public Works & City Engineer

Recommended City Council Action

- Accept the 2nd Street NW Area Storm Sewer & Street Improvements project as complete.
Approve Change Order No. 1 for the final adjustment of contract quantities in the amount of a \$6,967.80 increase.
Approve Pay Estimate No. 8 in the amount of \$44,052.87 as the final payment to Denver Underground & Grading of Denver, Iowa.

Summary Statement

Denver Underground & Grading has completed the Second Street NW Area Storm Sewer & Street Improvements project in accordance with the contract documents. The total cost of the completed work is \$774,657.45. Change Orders No. 1 is for a net increase of \$6,967.80 to the contract sum.

Expenditure Required

Table with 2 columns: Description and Amount. Rows include Engineering Design & Const. Staking, Construction Inspection, Construction - Denver's Bid, Construction - Change Order No.1, Restoration & Seeding, and Total Estimated Cost of the Project (\$ 848,320).

Source of Funds

Table with 2 columns: Description and Amount. Rows include CIP Acct. 470 - Storm Drainage Improvements, TIF - 2 Blocks Eligible, FY2015-16 - Water Fund, Local Option Sales Tax, Proceeds Available from 20th St. NW Culvert G.O. Bond, St. Paul's Church, N.T.E. by Agreement, and Total Financing for the Project (\$ 858,700).

Policy

The repair and maintenance of storm water structures and facilities follows recommendations cited in the following documents for the maintenance and construction of infrastructure:

- Waverly Strategic Planning Report - November 12, 2013
Waverly Comprehensive Plan Update - October 24, 2011
City of Waverly Hazard Mitigation Plan Update - June 2009

Project Concern

The project cost exceeded the budget developed in May 2014, but sufficient funding is available to complete the project. The final cost of the project is about \$848,320 versus the March 16, 2015 estimate of 847,690.

Alternative

The “Source of Funds” section of this memo shows drawing upon Local Option Sales Tax Funding and Water Funding as necessary to help finance the project.

Background Information

The City Council of the City of Waverly on October 20, 2008, by Resolution 08-140 approved the vacation of 2nd Avenue NW to St. Paul’s Church while reserving a storm sewer easement between 1st Street NW and 2nd Street NW. At the time St. Paul’s Church was developing a major capital improvement project that needed the 2nd Avenue NW right-of-way and would likely require the relocation of the storm sewer by the time their construction project was to begin. However, after just experiencing a 500-year flood from the Cedar River in June 2008, the construction schedule for this major building project was unknown.

The City, being aware of the future St. Paul’s Church building project and relocation of the 2nd Avenue NW storm sewer, saw an opportunity to also address the need to improve storm sewer capacity in the surrounding neighborhood. In 2011, as part of the dam reconstruction project, the storm sewer outlet in Kohlmann Park below the Waverly Inflatable Dam was enlarged in anticipation of the future rerouting of the 2nd Avenue NW and 3rd Avenue NW storm sewers.

- Oct. 20, 2008.....City Council Approved Vacation of 2nd Avenue NW
- May 19, 2014.....City Council Considers Development Agreement
- July 21, 2014.....Approve Engineering Agreement
- Oct. 6, 2014.....Project Update and Preliminary Plan Review
- Jan. 5, 2015.....Set Public Hearing
- Feb. 2, 2015.....Hold Public Hearing
- Feb. 5, 2015.....Bid Letting
- Feb. 16, 2015.....Award Contract
- March 16, 2015.....Approve Contract Documents
- June 9 to Aug. 14, 2015.....Construction Window
- September 21, 2015.....Finalize Project**

Respectfully submitted,

Phil Jones
City Administrator

Attachments:

- Statement of Project Completion
- Change Order No. 1
- Pay Application No. 8 - FINAL



AGENDA MEMORANDUM
City Council Meeting
March 7, 2016

SUBJECT: AmVets Area Riverbank Restoration 2015 – Finalize Project

Prepared By: Mike Cherry, Director of Public Works & City Engineer

Recommended City Council Action

- Accept the AmVets Area Riverbank Restoration 2015 project as complete.
Approve Change Order No. 1 for an increase of \$34,185.46.
Approve Pay Estimate No. 2 in the amount of \$33,086.14.
Approve Pay Estimate No. 3 in the amount of \$4,807.45 as the final payment to Skyline Construction of Decorah, Iowa.

Summary Statement

Skyline Construction of Decorah, Iowa has completed the AmVets Area Riverbank Restoration 2015 project in accordance with the contract documents. The total cost of the completed work is \$96,148.99. Change Order No. 1 is for a final adjustment of the contracted quantities.

Expenditure Required

Table with 2 columns: Item, Amount. Rows include INRCOG, Survey Services (HRS), Appraisals (Valuation Services), Property Acquisition - Parcel W (prairie restoration), Property Acquisition - Parcel V (ball field, parking lot & improvements), Construction Cost, Skyline's Bid, Construction Change Order No. 1, Design, Inspection and Admin. Cost Est. Total Estimated Cost of the Project \$ 137,499

Source of Funds

Table with 2 columns: Source, Amount. Rows include State REAP Funding Approved, maximum \$ 100,000, Local Funding (FY2015-16) 37,500, Total Financing for the Project \$ 137,500

Policy

The AmVets Area Riverbank Restoration 2015 project is consistent with one or more of the following planning documents:

- Waverly Strategic Planning Report – November 21, 2013
Waverly Comprehensive Plan Update – October 24, 2011
Parks Open Space Plan – April 28, 2011

Project Concern

The project overran projected plan quantities in the following three areas: 1) earthwork; 2) rubble removal and 3) rip-rap. Item 2 was the result of the unknown quantity of buried concrete on site, and items 1 and 3 were the result of the affected riverbank being about 20% longer and/or deeper than originally estimated.

Alternative

NA

Background Information

There is about 600 linear feet of the old AmVets shoreline remaining to be restored in Area 2. Approximately 3 acres of land has been acquired. Riverbank restoration in Area 1 was completed in 2013.

The Resource, Enhancement and Protection Grant (REAP) Program is a program in the State of Iowa that invests in, as its name implies, the enhancement and protection of the state's natural and cultural resources. Iowa's cities and counties are eligible to participate. It is a competitive grant that we have enjoyed success in obtaining funds for two projects in recent years with the Iowa Northland Regional Council of Governments (INRCOG) assistance in writing the application.

June 2, 2014.....	Approve MOU with INRCOG
August 4, 2014.....	Approve REAP Application
August 15, 2014.....	REAP Application Deadline to IDNR
November 3, 2014.....	Approve REAP Grant Agreement
February 16, 2015.....	Set Public Hearing Date
March 2, 2015.....	Hold Public Hearing
March 5, 2015.....	Bid Opening
March 16, 2015.....	Award Contract
April 6, 2015.....	Approve Contract Documents
September, 2015.....	Construction
March 7, 2016.....	Finalize Project

Respectfully submitted,

James Bronner
City Administrator

Attachments Change Order No. 1
Statement of Project Completion
Pay Application No. 2
Pay Application No. 3 (Final)



AGENDA MEMORANDUM
City Council Meeting
August 17, 2015

SUBJECT: 2015 Bituminous Seal Coat Program
Finalize Project

Prepared By: Mike Cherry, Director of Public Works & City Engineer

Recommended City Council Action

- Approve Change Order No. 2 in the amount of a \$7,013.59 decrease.
Accept the 2015 Bituminous Seal Coat Program as complete.
Approve Pay Estimate No. 2 in the amount of \$6,205.47 as the final payment to Blacktop Services Co. of Humboldt, Iowa.

Summary Statement

Blacktop Services Co. has completed the 2015 Bituminous Seal Coat Program in accordance with the contract documents. The total cost of the completed work is \$124,109.41. Change Order No. 2 – Final Adjustment of Quantities is for a net decrease of \$7,013.59 to the contract sum.

This project involved the seal coating of approximately 100 City blocks.

Expenditure Required

Table with 2 columns: Description and Amount. Rows include Construction Cost, Project Design, Adm. & Insp. Est., and Total Cost of the Project.

Source of Funds

Table with 2 columns: Description and Amount. Rows include Local Option Sales Tax, Road Use Tax Fund, and Total Financing for the Project.

Policy

The 2015 Bituminous Seal Coat Program follows recommendations cited in the following documents for the preservation of City streets and infrastructure:

- Waverly Strategic Planning Report – November 12, 2013
Waverly Comprehensive Plan Update – October 24, 2011

Policy Concern

None noted to date.

Alternative

Not applicable.

Background Information:

The Bituminous Seal Coat Program is part of the City’s annual improvement plan for maintaining the residential street system. City crews perform roadway repairs and patching prior to the hired contractor applying the bituminous seal coat. Seal coating is a thin surface treatment that helps to improve the longevity of an asphaltic pavement. This year’s project involves the seal coating of approximately 100 City blocks.

Feb. 16, 2015.....	Set Public Hearing Date
March 2, 2015.....	Hold Public Hearing
March 5, 2015.....	Bid Letting
March 16, 2015.....	Award Project
April 6, 2015.....	Approve Contract, Bonds and Insurance
July 6, 2015.....	Review Change Order No. 1 – Additional Streets
July 20, 2015.....	Approve Change Order No. 1 – Additional Streets
June 8 – Aug. 18, 2015.....	Construction Window
August 17, 2015.....	Approve Change Order No. 2 & Finalize Project

Respectfully submitted,

Phil Jones
City Administrator

Attachments: Change Order #2
Statement of Project Completion
Pay Estimate #2 - final



AGENDA MEMORANDUM
City Council Meeting
July 6, 2015

SUBJECT: Citywide Ped Ramp Construction 2015 – Finalize

Prepared By: Mike Cherry, Director of Public Works & City Engineer

Recommended City Council Action

- Approve Change Order No. 1 for the final adjust of quantities in the amount of a \$29,921.30 decrease.
- Accept the Citywide Ped Ramp Construction - 2015 project as complete.
- Approve Pay Estimate No. 5 in the amount of \$4,066.54 as the final payment to Boulder Contracting of Grundy Center, Iowa.

Summary Statement

Boulder Contracting of Grundy Center, Iowa, has completed the Citywide Ped Ramp Construction 2015 project in accordance with the contract documents. The total cost of the completed work is \$81,330.70. Change Order No. 1 – Final Adjustment of Quantities is for a net decrease of \$29,921.30 to the contract sum.

Ped ramp construction along East Bremer Avenue was deleted from the contract due to the work that the Iowa DOT is planning for in 2017. Proposed work on IA 3/Bremer Avenue will likely involve the construction or reconstruction of the ped ramps by the Iowa DOT.

Expenditure Required

Pedestrian Ramp Construction – Boulder, Final.....	\$ 81,331	
Project Administration & Inspection Cost Estimate.....	<u>7,500</u>	
Total Estimated Cost of the Project.....		\$ 88,831

Source of Funds

CIP Acct. #330, Pedestrian Ramp Construction.....	\$ 140,000	
Total Financing for the Project.....		\$ 140,000

Policy

The Citywide Ped Ramp Construction project is part of the ongoing citywide program to develop and maintain a pedestrian friendly community for all citizens with or without disabilities. The City's efforts include inspecting and repairing sidewalks and the construction of pedestrian ramps and curbed street crossings. To ensure compliance, the City of Waverly follows recommendations and requirements cited in federal and state documents for the design and construction of pedestrian accommodations.

Project Concern

None noted to date.

Alternative

NA

Background Information

In 2011 the City implemented the citywide sidewalk repair program and citywide pedestrian ramp construction program. Waverly is divided into 7 districts for sidewalk repairs and pedestrian ramp construction and one district is completed each year. In 2015 inspections and work will be completed in District 5.

January 5, 2015.....	Set Public Hearing Date
February 2, 2015.....	Hold Public Hearing
February 5, 2015.....	Bid Letting
February 16, 2015.....	Award Contract
March 16, 2015.....	Approve Contract, Bonds and Insurance
April – Aug. 2015.....	Construction Window
July 6, 2015.....	Finalize Project

Respectfully submitted,

Phil Jones
City Administrator

Attachments:

- Statement of Project Completion
- Change Order No. 1
- Pay Application No. 5, Final



AGENDA MEMORANDUM

City Council Meeting

December 7, 2015

SUBJECT: Citywide Sidewalk Repairs 2015
Finalize Project

Prepared By: Mike Cherry, Director of Public Works & City Engineer

Recommended City Council Action

- Accept the Citywide Sidewalk Repairs 2015 project as complete.
- Approve Change Order No. 1 for an increase of \$8,133.32.
- Approve Pay Estimate No. 3 in the amount of \$5,866.43 as the final payment to Feldman Concrete of Dyersville, Iowa.

Summary Statement

Feldman Concrete of Dyersville, Iowa has completed the Citywide Sidewalk Repairs 2015 project in accordance with the contract documents. The total cost of the completed work is \$65,515.82. Change Order No. 1 is for a final adjustment of the contracted quantities.

Expenditure Required

Sidewalk Repair Cost, Feldman's Final	\$ 65,516	
Project Administration & Inspection Cost Estimate	<u>25,000</u>	
Total Estimated Cost of the Project		\$ 90,516

Source of Funds

CIP Acct. #330, Sidewalk Repair Construction	\$ 75,516	
Property Owner Payments, Estimate	<u>15,000</u>	
Total Financing for the Project		\$ 90,516

Policy

The Citywide Sidewalk Repairs 2015 project is part of the ongoing citywide program to develop and maintain a pedestrian friendly community for all citizens with or without disabilities. The City's efforts include inspecting and repairing sidewalks and the construction of pedestrian ramps at curbed street crossings. To ensure compliance, the City of Waverly follows recommendations and requirements cited in federal and state documents for the design and construction of sidewalks and pedestrian accommodations.

Project Concern

None noted to date.

Alternative

NA

Background Information

In 2011 the City implemented the Citywide Sidewalk Repair Program and the Citywide Pedestrian Ramp Construction Program. Waverly is divided into 7 districts for sidewalk repairs and pedestrian ramp construction and one district is completed each year. In 2015 inspections and work will be completed in District 5.

June 15, 2015..... Set Public Hearing Date
July 6, 2015..... Hold Public Hearing
July 9, 2015..... Bid Letting
July 20, 2015..... Award Project
August 17, 2015..... Approve Contract, Bonds and Insurance
December 7, 2015..... Finalize Project

Respectfully submitted,

Mike Cherry
Director of Public Works & City Engineer

Attachments Statement of Project Completion
Change Order No. 1
Pay Application No. 3 (Final)



AGENDA MEMORANDUM
City Council Meeting
April 20, 2015

SUBJECT: Waverly Dog Park Fencing Project – Finalize Project

Prepared By: Mike Cherry, Director of Public Works & City Engineer
Tab Ray, Director of Leisure Services

Recommended City Council Action

- Approve Change Order No. 1 for the final adjust of quantities in the amount of a \$525.00 decrease.
- Accept the Waverly Dog Park Chain Link Fencing project as complete.
- Approve Pay Estimate No. 2 in the amount of \$1,641.68 as the final payment to D & N Fence Company of Cedar Rapids, Iowa.

Summary Statement

D & N Fence Company of Cedar Rapids, Iowa, has completed the Waverly Dog Park – Chain Link Fencing project in accordance with the contract documents. The total cost of the completed work is \$32,833.50. Change Order No. 1 – Final Adjustment of Quantities is for a net decrease of \$525.00 to the contract sum.

Expenditure Required

Dog Park – Fencing – D & N Fencing, Final.....	\$ 32,834
Dog Park – Parking Lot, Blacktop Services' Bid.....	36,210
Dog Park – Drinking Fountains, Cost Estimate.....	6,000
Dog Park – Available for Additional Amenities.....	36,956
Project Administration & Inspection Cost Estimate.....	<u>5,000</u>
Total Estimated Cost of the Project.....	\$ 117,000

Source of Funds

Dog Park Grant.....	\$ 100,000
Dog Park Donations.....	<u>17,000</u>
Total Financing for the Project.....	\$ 117,000

Policy

The Waverly Dog Park project is part of the ongoing citywide program to develop and maintain a friendly community for all citizens. The City’s efforts include developing a wide variety of recreational opportunities for all segments of the population including our canine members.

Project Concern

None noted.

Alternative

NA

Background Information

An idea was brought up to City staff by an individual City Council member and transitioned into an area-wide effort by a dedicated group of people to achieve the top award of “TOP DOG” in the PETSAFE “Bark for Your Park” nationwide contest. Winning this contest meant that Waverly could build a high quality park for people with dogs and provide another option for an improved quality of life in Waverly.

The construction of the dog park will be administered by the City as a city project, and the fencing is the first phase of the project, to be followed by additional improvements including parking lot and features/amenities in the park.

- Aug. 7, 2014..... Waverly Awarded a PetSafe “Bark-for-Your-Park” Grant
- Sept. 11, 2014..... Public input meeting on Dog Park
- Sept. 25, 2014..... Dog Park Advisory Committee Meeting-Needs/Wants
- Oct. 16, 2014..... Dog Park Advisory Committee Meeting- Rules
- Nov. 20, 2014..... Joint meeting with Leisure Services Commission
- Jan. 5, 2015..... Set Public Hearing Date
- Feb. 2, 2015..... Hold Public Hearing
- Feb. 5, 2015..... Bid Letting
- Feb. 16, 2015..... Award Contract
- March 16, 2015..... Approve Contract, Bonds and Insurance
- April 2015..... Construction Window
- April 20, 2015..... Finalize Project**

Respectfully submitted,

Phil Jones
City Administrator

Attachments:

- Statement of Project Completion
- Change Order No. 1
- Pay Application No. 2, Final



AGENDA MEMORANDUM

City Council Meeting

July 6, 2015

SUBJECT: Waverly Dog Park - Parking Lot Project and Citywide Asphalt Patching – Spring 2015
Finalize Project

Prepared By: Mike Cherry, Director of Public Works & City Engineer
Tab Ray, Director of Leisure Services

Recommended City Council Action

- Approve Change Order No. 1 for the final adjust of quantities in the amount of a \$5,350.82 increase.
- Accept the Waverly Dog Park - Parking Lot Project and Citywide Asphalt Patching – Spring 2015 project as complete.
- Approve Pay Estimate No. 3 in the amount of \$2,218.26 as the final payment to Blacktop Services Co. of Humboldt, Iowa.

Summary Statement

Blacktop Services Co. of Humboldt, Iowa, has completed the Waverly Dog Park - Parking Lot Project and Citywide Asphalt Patching – Spring 2015 project in accordance with the contract documents. The total cost of the completed work is \$44,365.12. Change Order No. 1 – Final Adjustment of Quantities is for a net increase of \$5,350.82 to the contract sum.

Upon splitting the initial mobilization (Bid Item No. 6) equally between the projects: the Dog Park – Parking Lot portion of the project is \$35,725.72 and the Asphalt Patching portion is \$8,639.40 for a combined final project cost of \$44,365.12. The Asphalt Patching is funded through utility company reimbursements.

Expenditure Required

Dog Park – Fencing – D & N Fencing (final).....	\$ 32,834
Dog Park – Parking Lot, Blacktop Services (final).....	35,726
Dog Park – Drinking Fountains, Cost Estimate.....	6,000
Dog Park – Available for Additional Amenities.....	37,440
Project Administration & Inspection Cost Estimate.....	<u>5,000</u>
Total Estimated Cost of the Project.....	\$ 117,000

Source of Funds

Dog Park Grant.....	\$ 100,000
Dog Park Donations.....	<u>17,000</u>
Total Financing for the Project.....	\$ 117,000

Policy

The Waverly Dog Park project is part of the ongoing citywide program to develop and maintain a friendly community for all citizens. The City’s efforts include developing a wide variety of recreational opportunities for all segments of the population including our canine members.

Project Concern

None noted to date.

Alternative

NA

Background Information

An idea was brought up to City staff by an individual City Council member and transitioned into an area wide effort by a dedicated group of people to achieve the top award of “TOP DOG” in the PETSAFE “Bark for Your Park” nationwide contest. Winning this contest meant that Waverly could build a high quality park for people with dogs and provide another option for an improved quality of life in Waverly.

The construction of the dog park will be administered by the City as a city project, and the fencing is the first phase of the project, to be followed by additional improvements including parking lot and features/amenities in the park.

Aug. 7, 2014.....Waverly Awarded a PetSafe “Bark-for-Your-Park” Grant
Sept. 11, 2014.....Public input meeting on Dog Park
Sept. 25, 2014.....Dog Park Advisory Committee Meeting-Needs/Wants
Oct. 16, 2014.....Dog Park Advisory Committee Meeting- Rules
Nov. 20, 2014.....Joint meeting with Leisure Services Commission
Jan. 5, 2015.....Set Public Hearing Date
Feb. 2, 2015.....Hold Public Hearing
Feb. 5, 2015.....Bid Letting
Feb. 16, 2015.....Award Contract
March 16, 2015.....Award & Approve Contract and Insurance
April 2015.....Construction Window
July 6, 2015.....Finalize Project

Respectfully submitted,

Phil Jones
City Administrator

Attachments:

- Statement of Project Completion
- Change Order No. 1
- Pay Application No. 3, Final



AGENDA MEMORANDUM
City Council Meeting
October 5, 2015

SUBJECT: West Bremer Avenue Sidewalk Extension – Finalize Project

Prepared By: Mike Cherry, Director of Public Works & City Engineer

Recommended City Council Action

- Accept the West Bremer Avenue Sidewalk Extension project as complete.
Approve Change Order No. 1 for the final adjustment of contract quantities in the amount of a \$1,704.38 increase.
Approve Pay Estimate No. 5 in the amount of \$4,662.82 as the final payment to Boulder Contracting of Grundy Center, Iowa.

Summary Statement

Boulder Contracting has completed the West Bremer Avenue Sidewalk Extension project in accordance with the contract documents. The total cost of the completed work is \$93,256.44. Change Orders No. 1 is for a net increase of \$1,704.38 to the contract sum.

Expenditure Required

Table with 2 columns: Description and Amount. Rows include Design, WHKS - N.T.E. (\$16,539), Construction - Boulder's Bid (91,552), Construction - Change Order No.1 (1,704), Removal of Trees & Stumps (3,600), Construction - Finish Sidewalk Utility Pole Gap (1,500), Project Administration and Inspection (8,000), and Total Cost of the Project (\$122,895).

Source of Funds

Table with 2 columns: Description and Amount. Rows include G.O. Bond FY 2014-15 (\$100,000), Lutheran Services in Iowa (LSI) (23,000), and Total Financing for the Project (\$123,000).

Policy

The proposed West Bremer Avenue Sidewalk Extension is consistent with one or more of the following planning documents:

- Waverly Strategic Planning Report – November 21, 2013
City Council's Goal Setting – July 2013
Waverly Comprehensive Plan Update – October 24, 2011
Parks Open Space Plan – April 28, 2011

Project Concern

None noted to date.

Alternative

NA

Background Information

During strategic planning for the FY 2014-15 capital improvement program and budget there was discussion regarding the lack of any pedestrian accommodations along West Bremer Avenue from 20th Street West for half the distance towards 16th Street SW. Additionally, the existing 4-foot wide sidewalk that extended the remaining stretch towards 16th Street SW is in poor condition. City staff discussions with Lutheran Services in Iowa (LSI) led to agreement that a 10-foot wide multimodal pedestrian and bike path adjacent to the property along West Bremer Avenue from 16th Street SW to 20th Street SW should be built. LSI has budgeted \$30,000 to assist the City with replacing the existing 4-foot wide sidewalk that is in poor condition adjacent to their property. The new sidewalk will readily accommodate LSI's snow removal equipment and will provide pedestrian and bike accommodation from the neighborhoods west of 20th Street West to the High School and Waverly Public Library areas.

March 17, 2014..... Approve multi-project Professional Services Agreement with WHKS & Co. for various 2015 improvement projects.
Jan. 5, 2015..... Set Public Hearing
Feb. 2, 2015..... Hold Public Hearing
Feb. 5, 2015..... Bid Letting
Feb. 16, 2015..... Award Contract
March 16, 2015..... Approve Contract Documents
Sept. 8 to Oct. 23, 2015..... Construction Window
October 5, 2015..... Finalize Project

Respectfully submitted,

Phil Jones
City Administrator

Attachments:

Statement of Project Completion
Change Order No. 1
Pay Application No. 5 - FINAL



AGENDA MEMORANDUM
City Council Meeting
October 24, 2016

SUBJECT: 16th Street SW Reconstruction 2016 – Finalize Project

Prepared By: Mike Cherry, Director of Public Works & City Engineer

Recommended City Council Action

- Accept the 16th Street SW Reconstruction 2016 project (from near 4th Avenue SW to Meadow View Lane) as complete.
Approve Pay Estimate No. 3 in the amount of \$8,735.04 as the final payment to Heartland Asphalt of Mason City, Iowa.

Summary Statement

Heartland Asphalt of Mason City, Iowa, has completed the 16th Street SW Reconstruction 2016 project (from near 4th Avenue SW to Meadow View Lane) in accordance with the contract documents. The total cost of the completed work is \$287,537.73.

Expenditure Required

Table with 2 columns: Description and Amount. Rows include Design - WHKS, N.T.E., Final (\$ 20,784), Construction Cost - Heartland Asphalt, Final (287,538), Restoration & Seeding - Wells Hollow, Final (2,000), Asphalt Plant Inspection - TEAM Services, Final (1,506), Project Administration & Inspection by City, Estimate (15,000), and Total Cost of the Project (\$ 326,828).

Source of Funds

Table with 2 columns: Description and Amount. Rows include LOST FY 2015-16 (\$ 35,000), LOST FY 2016-17 (205,000), Federal Aid FY 2016-17 (200,000), and Total Financing for the Project (\$ 440,000).

Policy

The proposed 2016 improvement project is consistent with one or more of the following planning documents:

- Waverly Strategic Planning Report - November 21, 2013
City Council's Goal Setting - July 2013
Waverly Comprehensive Plan Update – October 24, 2011

Project Concern

None noted to date.

Alternative

NA

Background Information

This 2016 asphalt project is part of the City’s five-year capital improvement plan for reconstruction of collector and high-traffic streets.

August 17, 2015.....	Approve PSA for 2015 Improvement Projects
October 5, 2015.....	Approve IDOT Agreement for Federal-Aid Funding
January 4, 2016.....	Set Public Hearing
January 4, 2016.....	Approve INRCOG STP Programming Agreement
January 18, 2016.....	Hold Public Hearing
February 16, 2016.....	IDOT Letting
March 7, 2016.....	Award Contract
April 4, 2016.....	Approve Contract Documents
June 13 to August 19, 2016.....	Construction Window
October 17, 2016.....	Finalize Project – no Council quorum
October 24, 2016.....	Finalize Project

Respectfully submitted,

James Bronner
City Administrator

Attachments:

- Statement of Project Completion
- Pay Application No. 3 - FINAL



AGENDA MEMORANDUM
City Council Meeting
July 18, 2016

SUBJECT: Citywide Ped Ramp Construction 2016 – Finalize

Prepared By: Mike Cherry, Director of Public Works & City Engineer

Recommended City Council Action

- Approve Change Order No. 1 for the final adjust of quantities in the amount of a \$17,685.00 increase.
- Accept the Citywide Ped Ramp Construction 2016 project as complete.
- Approve Pay Estimate No. 4 in the amount of \$4,346.25 as the final payment to Feldman Concrete of Dyersville, Iowa.

Summary Statement

Feldman Concrete of Dyersville, Iowa, has completed the Citywide Ped Ramp Reconstruction 2016 project in accordance with the construction documents. The cost of the completed work is \$86,925.00 and Change Order No. 1 in the amount of a \$17,685.00 increase is for the final adjustment of contract quantities.

Expenditure Required

Pedestrian Ramp Construction – Feldman’s Bid.....	\$ 86,925
Project Administration & Inspection Cost Estimate.....	<u>10,000</u>
Total Estimated Cost of the Project.....	\$ 96,925

Source of Funds

CIP Acct. #330, Pedestrian Ramp Construction.....	\$ <u>100,000</u>
Total Financing for the Project	\$ 100,000

Policy

The Citywide Ped Ramp Construction project is part of the ongoing citywide program to develop and maintain a pedestrian friendly community for all citizens with or without disabilities. The City’s efforts include inspecting and repairing sidewalks and the construction of pedestrian ramps and curbed street crossings. To ensure compliance, the City of Waverly follows recommendations and requirements cited in federal and state documents for the design and construction of pedestrian accommodations.

Project Concern

None noted to date.

Alternative

NA

Background Information

In 2011 the City implemented the citywide sidewalk repair program and citywide pedestrian ramp construction program. Waverly is divided into 7 districts for sidewalk repairs and pedestrian ramp construction and one district is completed each year. In 2016 inspections and work will be completed in District 6.

February 15, 2016.....	Set Public Hearing Date
March 7, 2016.....	Hold Public Hearing
March 10, 2016.....	Bid Letting
March 21, 2016.....	Award Project
April 18, 2016.....	Approve Contract, Bonds and Insurance
April 19 - June 2016.....	Construction Window
July 18, 2016.....	Finalize Project

Respectfully submitted,

James Bronner
City Administrator

Attachments: Statement of Project Completion
Change Order No. 1
Pay Application No. 4, Final



AGENDA MEMORANDUM
City Council Meeting
October 5, 2015

SUBJECT: Cedar River Parkway (West) Improvements – Finalize Project

Prepared By: Mike Cherry, Director of Public Works & City Engineer

Recommended City Council Action

- Approve Change Order No. 1 in the amount of a \$74,612.82 decrease.
- Approve Pay Estimate No. 19 in the amount of \$3,816.71 as the sub-final payment to Peterson Contractors Inc. of Reinbeck, Iowa.
- Accept the Cedar River Parkway (West) Improvements project as complete.
- Approve Change Order No. 2 for the final adjustment of contract quantities in the amount of a \$59,637.20 decrease.
- Approve Pay Estimate No. 20 in the amount of \$174,603.76 as the final payment to Peterson Contractors Inc. of Reinbeck, Iowa.

Summary Statement

Peterson Contractors Inc. has completed the Cedar River Parkway (West) Improvements project in accordance with the contract documents. The total cost of the completed work is \$2,865,458.08. Change Orders No. 1 and No. 2 are for a net decrease of \$134,250.02 to the contract sum.

Expenditure Required

Design Services (West), Stanley – Estimate.....	\$ 314,700
Insp. & Admin. Services (West), Stanley – N.T.E.....	214,600
SA No.2, Stanley – N.T.E.....	56,500
Construction (West) – PCI.....	2,999,708
Change Order No.1, PCI.....	(74,613)
Change Order No.2, PCI.....	(59,637)
Public Works Administration (West) – Estimate.....	<u>18,000</u>
Total Estimated Cost of the Project.....	\$ 3,469,258

Source of Funds

Acct. #495, Fund Balance.....	\$ 23,181
Acct. #495, Budgeted FY14-15	3,700,000
State or Federal Funding Assistance	<u>None</u>
Total Financing.....	\$ 3,723,181

Policy

The Cedar River Parkway project follows recommendations cited in the following documents:

- Waverly Strategic Planning Report – November 12, 2013
- Waverly Comprehensive Plan Update – October 24, 2011
- Parks Open Space Plan – April 28, 2011
- Waverly, Iowa Smart Planning Workshop (Report) – October 2010
- Hazard Mitigation Plan – June 15, 2009
- Long-Term Community Recovery – December 2008

Project Concern

None.

Alternative

None needed.

Background Information

The Cedar River Parkway project corridor closely follows the alignment of a planned arterial roadway that would be built to accommodate a growing community. In the early 1970s the alignment was originally considered by the Iowa DOT. In 1998 the City of Waverly initiated a corridor study to address congestion mitigation and development opportunities within the community. In 2001 the section from west IA 3 to 4th Street SW was completed.

In April 2012 the City completed the National Environmental Policy Act (NEPA) process, an hydraulic analysis of the roadway and bridge design impact on the Cedar River floodplain in southeast Waverly and preliminary plans for the roadway corridor from 4th Street SW across the Cedar River to east IA 3. A Finding of No Signification Impact (FONSI) was subsequently issued, effectively clearing the project for construction.

September 13, 2010..... Approve Consultant Selection
April 23, 2012..... Final Presentation of EA & Preliminary Design
April 15, 2013..... Approve Professional Services Agreement – Suppl. Agr. No.1
June 17, 2013..... Neighborhood Information & Public Input Meeting
August 26, 2013..... 75% Preliminary Plan Review with Council
December 2, 2013..... Set Public Hearing Date
December 16, 2013..... Hold Public Hearing
February 6, 2014..... Bid Opening
February 17, 2014..... Award Contract – TABLED
February 17, 2014..... Approve PSA Sup. Agree. #1 for Const. Admin. Services – TABLED
February 24, 2014..... Award Contract
February 24, 2014..... Approve PSA Sup. Agree. No. 1 for Const. Admin. Services
March 17, 2014..... Approve Contract Documents
April 6, 2015..... Approve Professional Services Agreement – Suppl. Agr. No. 2
Apr 2014 – Jun 2015..... Construction Window
October 5, 2015..... Finalize Project

Respectfully submitted,

Phil Jones
City Administrator

Attachments: Change Orders #1 & #2
Statement of Project Completion
Pay Estimates #19 (sub-final) & #20 (final)



AGENDA MEMORANDUM
City Council Meeting
September 21, 2015

SUBJECT: Waverly Airport –Mechanic’s Room Insulation Replacement

Prepared By: Mike Cherry, Director of Public Works & City Engineer

Recommended City Council Action

Approve quote from Kinzler Construction of Ames, Iowa, for construction services related to the Waverly Airport Mechanic’s Room Insulation Replacement project, for the quoted price of \$10,068.00.

Summary Statement

The original insulation inside the 28' x 40' mechanic’s room of the bulk hangar facility at the Waverly Municipal Airport has reached the end of its useful life and has deteriorated to the point where the powder coatings are physically falling out of the facing; creating a "snowfall" effect. The falling debris makes it extremely difficult to service aircraft especially when rebuilding critical parts such as engines etc.

This project proposes to remove and replace the wall and ceiling insulation inside the mechanic’s room only. Kinzler Construction will replace insulation that was installed in March 2014 by another contractor and subsequently rejected by the City for poor workmanship.

Expenditure Required

Table with 2 columns: Item and Amount. Rows include Design & Insp., McClure Engineering – Lump Sum (\$ 8,980), Prairie Construction (4,496), Kinzler Construction (10,068), Project Admin., Public Works Admin. – Estimate (1,200), and Total Estimated Cost of the Project (\$ 20,248).

Source of Funds

Table with 2 columns: Item and Amount. Rows include Airport Budget (Other Cap. Imp.), FY2013-14 (\$ 50,000) and Total Financing Available for the Project (\$ 50,000).

Policy Issue

Should the City locally finance the replacement of the insulation in the Airport’s mechanic’s room or wait for state funding assistance?

Alternative

Waiting for state funding assistance to replace the insulation in the mechanic’s room is not recommended due to the sensitivity of the work and need for a clean environment.

Background Information

The original exposed insulation inside the bulk hangar facility at the Waverly Municipal Airport has reached the end of its useful life and has deteriorated to the point where the powder coatings are physically falling out of the facing, creating a "snowfall" effect. The falling debris makes it extremely difficult to service aircraft. In May 2013 the City applied for an Iowa DOT GAVI application to fund half the project cost. The City was not awarded funding. However, there are sufficient local matching funds available to fund 100% of the insulation replacement in the mechanic’s room. The City can again apply for GAVI funding in May 2016 for replacing the insulation in the bulk hangar.

April 11, 2013	Airport Commission reviewed and approved GAVI application
May 6, 2013	City Council approves GAVI application for insulation replacement
May 9, 2013	Deadline for filing Iowa DOT GAVI application
June 2013	Notice to City that GAVI grant was not approved
November 14, 2013	Airport Commission reviewed and approved McClure’s Amendment No. 8
November 18, 2013	City Council request to approve McClure’s Amendment No. 8
January 9, 2014	Bid Opening
January 9, 2014	Airport Commission reviews bids, Award to Prairie Construction
January 20, 2014	City Council requested to award contract to Prairie Construction
February - March 2014	Construction Window
August 4, 2015	Prairie Construction’s Work Rejected
September 10, 2015	Airport Commission reviewed and approved quote from Kinzler Construction
September 21, 2015	City Council requested to approve Kinzler Construction’s Quote
October 2015	Construction Window

Respectfully submitted,

Phil Jones
City Administrator

Attachments

Quote from Kinzler Construction

City of Waverly
Department of Public Works
FY 2015-16

GENERAL INFRASTRUCTURE MAINTENANCE

This division had previously been called “Streets General”.

A primary responsibility of the General Infrastructure Maintenance Division is to finance and/or inspect the following infrastructure:

- Inspect and perform routine maintenance on the dam.
- Pay for traffic signal maintenance.
- Inspect trail bridges every four years.
- Finance the USGS Cedar River Gage on Adams Parkway Bridge.
- Finance community wide street lighting, entrance signs and traffic signals.
- Finance uniforms and some training and conferences for employees in the Streets Division.

Additionally, the local property tax support of the Waverly Municipal Airport is shown as an expense and transfer of monies to the Airport Fund.

City of Waverly
Department of Public Works
 FY2015-16

EQUIPMENT SERVICES

The Equipment Services Division is responsible for routine maintenance and repairs for City vehicles; purchases parts utilized and inventoried for vehicles; and performs welding or fabrications that may be needed.

Equipment Services also prepares the specifications and bid documents for the purchasing of new equipment and vehicles and the sale of used equipment and vehicles.

Vehicle Repairs

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Service Jobs	712	794	733	744	700	564
New Tires	56	92	83	72	101	86
Tire Repairs	56	76	53	44	76	33
Batteries	8	7	3	7	4	3
Antifreeze (Gals)	29	55	43	72	76	74
Oil Changes	175	227	194	197	192	194
Oil (Gals)	513	739	628	639	606	467
Total Parts (\$)	\$ 93,949	\$ 106,339	\$ 86,165	\$ 104,020	\$ 97,669	\$ 77,076
Total Labor Charged	\$ 50,715	\$ 63,789	\$ 40,437	\$ 48,512	\$ 48,664	\$ 38,487

Fuel Purchased

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Unleaded Fuel (Gals)	25,389	27,181	25,881	26,798	24,824	24,415
Unleaded Fuel (\$)	\$ 59,774	\$ 92,813	\$ 90,230	\$ 90,460	\$ 77,494	\$ 53,826
Diesel Fuel (Gals)	40,805	39,755	32,983	38,579	37,224	44,284
Diesel Fuel (\$)	\$ 125,649	\$ 152,967	\$ 129,518	\$ 148,410	\$ 125,838	\$ 185,553

City of Waverly
Department of Public Works
FY 2015-16

STREETS - RUT

The Street Division involves many diverse areas. These areas will be summarized individually to overview the annual events. The Street Division maintains approximately 75+ miles/ 1,162 blocks of primary streets, 10 miles of gravel roads and alleys, and numerous municipal-owned parking lots.

Street Maintenance and Reconstruction

- Seal Coat Program
- Pothole Repair
- Crack Sealing

Snow Removal

Painting

- Line Striping
- Curb Painting
- School Crossing Signs
- Dry Run Walk Bridges

Special Collection Week (Furniture, Appliances, Tires, Yard Waste, & Brush)

Fall Leaf Pickup

Ditch Cleaning

Mowing

Street Sweeping

Road Grading

Alley Maintenance

Street Signs

- Maintenance
- Replacement

Emergency Response

- Flash Flooding
- Storm Damage Cleanup
- Other Manpower Needs

Parking Lot Maintenance

City of Waverly

Street Department Annual Report

FY 2015-16

<u>Streets</u>	<u>Hours</u>	<u>Painting</u>	<u>Hours</u>
Shoulder Work	<u>375</u>	Line Striping,	
Road Grading	<u>14</u>	Curbs & X-Walks	<u>301</u>
Alleys	<u>57</u>		
Cold Mix Patching /			
Durapatching	<u>928</u>		
Street Sweeping	<u>772</u>		
Weed Mowing /			
Tree Trimming	<u>1,354</u>		
Rock / Chips Hauling	<u>58</u>		
		<u>Snow Removal</u>	
		Sand Hauling	<u>126</u>
		Snow Fence	<u>0</u>
		Snow Plowing	<u>325</u>
		Snow Removal	<u>297</u>
		Sanding	<u>52</u>
		<u>Signs</u>	
		Repair &/or Replace	<u>95</u>
		New Installations	<u>38</u>
		<u>Special Projects</u>	
		Airport	<u>8</u>
		Yard Waste	<u>147</u>
		Spring Clean-up	<u>53</u>
		Fall & Winter Clean-up	<u>36</u>
		Water Dept	<u>13</u>
		Solid Waste Dept	<u>295</u>
		Sewer Maintenance	<u>20</u>
		WPC Dept	<u>3</u>
		Recycling Center	<u>3</u>
		Cemetery Dept	<u>16</u>
		Golf Course Dept	<u>0</u>
		Equip Services	<u>0</u>
		Parks Dept	<u>38</u>
		Meetings / Training	<u>139</u>

MATERIAL COMPARISON REPORT

Fiscal Year	2011-12	2012-13	2013-14	2014-15	2015-16
Asphalt Patch					
Tons	406	154	80	136	152
Cost (\$)	36,035	14,787	8,542	14,935	16,723
Road Rock					
Tons	1,134	489	312	459	779
Cost (\$)	9,579	4,131	2,678	4,179	7,156
3/8" Chips					
Tons	315	307	540	253	56
Cost (\$)	3,481	3,388	6,054	3,012	665
CRS-2 Oil					
Gallons	5,282	9,848	10,978	10,370	2,714
Cost (\$)	10,300	19,204	21,407	20,222	4,750

STREET MAINTENANCE (BLOCKS)

Fiscal Year	2011-12	2012-13	2013-14	2014-15	2015-16
Single Seal Coat (Bid)	125	97	94	75	100
Double Seal Coat	0	0	2	2	0

STREET RECONSTRUCTION

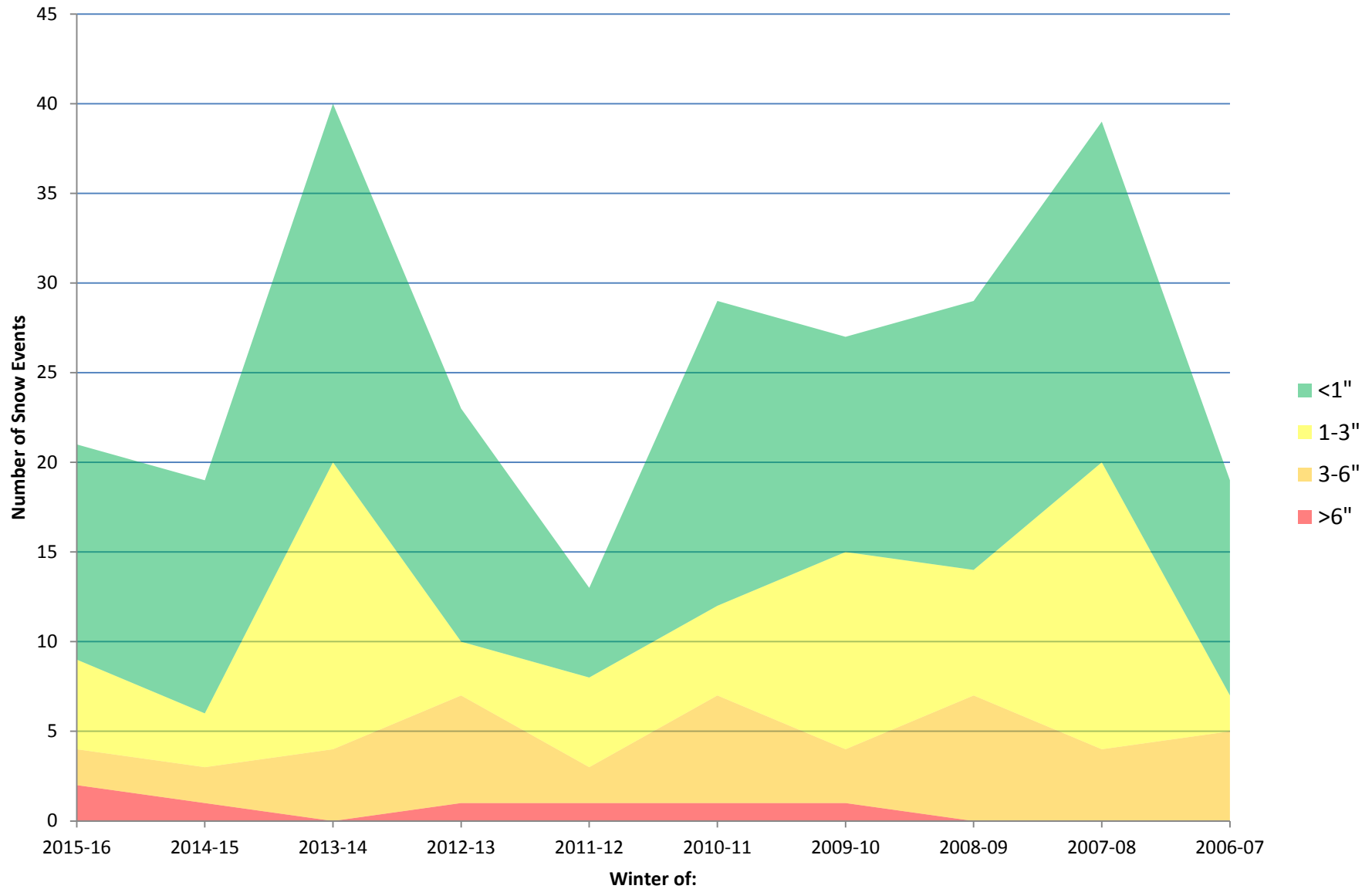
	Linear Feet	Miles
2011-12		
12th Street NW Resurface (RR to N of Ridgewood Blvd)	3,538	0.67
2012-13		
16th Street SW Reconst. (W. Bremer to 4th St. SW)	1,626	0.31
2013-14		
4th St NW Reconst. (Bremer Ave. to 5th Ave. NW) (included 1st, 2nd, 3rd & 4th Aves between 4th & 5th Sts NW)	3,013	0.57
2014-15		
2nd Avenue SW Reconst. (10th Ave. SW to 4th St. SW)	1,056	0.2
2nd Street NW Reconst. (Bremer Ave. to 3rd Ave. NW)	298	0.06
Cedar River Parkway Const. (4th St. SW to 8th St. SE)	4,456	0.84
2015-16		
16th Street SW (4th Ave. SW to Meadow View)	1,420	0.27

SNOW REMOVAL MATERIAL COMPARISON

Fiscal Year	2011-12	2012-13	2013-14	2014-15	2015-16
Rock Salt					
Tons	729	509	986	630	661
Cost (\$)	51,442	36,915	70,476	53,949	54,360
Ice Sand					
Tons	21	17	42	23	0
Cost (\$)	52	133	328	175	0

Measurable Snowfall Events

Waterloo, Iowa



Measurable Snowfall Events

Waterloo, Iowa



Waterloo, Iowa
Measurable Snowfall Events

	1	2	3	4	5	6	7	8	9	10			
	2015-16	2014-15	2013-14	2012-13	2011-12	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	10-yr avg
<1"	12	13	20	13	5	17	12	15	19	12	12	10	13.8
1-3"	5	3	16	3	5	5	11	7	16	2	5	5	7.3
3-6"	2	2	4	6	2	6	3	7	4	5	4	0	4.1
>6"	2	1	0	1	1	1	1	0	0	0	0	1	0.7
Total	21	19	40	23	13	29	27	29	39	19	21	16	25.9

City of Waverly
Department of Public Works
FY 2015-16

WATER

The Water Division is responsible for the operation and maintenance of the total water system including wells, towers, piping, pumps, controls, hydrants, and other equipment within the City of Waverly. This division performs or provides programs as follows: replacement of older system valves and hydrants, valve box raising and replacement, valve turning, hydrant flushing and flow testing, water main repair, water main testing and installation, water quality testing, answers customer complaints on taste, smell, usage, or questions regarding water quality as per articles that appear in the newspapers

The Water Division supplies water to Waverly residents and industry utilizing four wells, three towers, and approximately 74 miles of water main. This includes 692 fire hydrants, 865 water main valves, over 512 hydrant valves, and 3,966 meters. The pumping capacity of the system is approximately 5,100 gallons per minute and total storage of 1,750,000 gallons elevated. The average daily pumpage for FY 2015-16 was 966,307 gallons per day.

During FY 2015-16, the Water Division continued to locate and correct water leaks. Our billing to pumpage accountability has been calculated at 85%.

FUTURE PROJECTS

1. Continue replacement of older system valves and hydrants.
2. Continue education on the ever changing regulations set forth by the IDNR and USEPA to insure a safe drinking water system
3. Continue with the Source Water Protection Plan to reduce or eliminate certain contaminants from entering our ground water source and to educate the public on the importance such a plan

City of Waverly
Water Department
Activity for Fiscal Year 2015-16

Water Meters	Totals
New Meter Installations	108
Meters Replaced	25
Seasonal In	26
Seasonal Out	9
ERTs	9
Meters Tested & Repaired	1
Hyd. Meters / Hose Bib Meter	27

Water Service Lines	Totals
Capped Services	8
Service Line Taps	16
Sound Detection	8

Water Mains	Totals
Repaired	11
Replaced	3
Sound Detection	3
Large Taps (4"-6"-8")	11

Water Valves	Totals
Valves Operated	200
Valves Installed	5
Valves Repaired	6
Valves Replaced	5

Water Valve Boxes	Totals
Boxes Repaired	15
Boxes Installed	5
Boxes Cleaned	12
Boxes Raised	6
Boxes Lowered	7

Number of Locates	Totals
Iowa One Call Tickets	3,568
Structures Located from IOC Tickets	6,168
Responses Entered	3,568

Hydrants	Totals
Flushed	621
Repaired	10
Replaced	2
Installed	2
Painted	85
Flagged	6

Water Towers	Visits
Interior	120
Exterior	170
Exterior Maintenance (hours)	16

Wells	Visits
Interior	425
Exterior	425
Exterior Maintenance (hours)	16

Other Projects	Total
Contractors	100
Other City Departments	60

Service Center	Hours
Record Keeping (# of Hours)	540
Equipment Maintenance (Hrs)	134
Building Maintenance (Hrs)	154
Customer Care	101
Call Outs (Law Center/SCADA Alarms)	40

Number of Samples Taken	Totals
Bacteria	125
Chlorine	1,700
Fluoride	1,300
Nitrate	24

Water Consumption	
Salesman Gallons	21,800 gal.
Salesman Revenue	\$109.00
City Consumption Gallons	46,184,000 gal.
Highest Pumping Day	1,680,000 gal.
Lowest Pumping Day	672,000 gal.
Average Pumping Day	966,307 gal.
Total Gallons Pumped	352,702,000 gal.

OPERATIONAL DATA FOR WATER SYSTEM REPAIRS

	2011-12	2012-13	2013-14	2014-15	2015-16
Main Lines	20	21	49	31	14
Service Lines	10	16	16	16	12
4" Valves Installed	n/a	n/a	2	2	2
6" Valves Installed	n/a	n/a	2	2	2
8" Valves Installed	n/a	n/a	1	3	1
12" Valves Installed	n/a	n/a	n/a	1	0
Service Lines Capped	3	7	14	14	8
3/4" Taps Made	0	0	4	14	3
1"-2" Taps Made	6	4	15	22	13
4" Taps Made	0	0	1	1	1
6" Taps Made	0	1	1	2	8
8" Taps Made	0	1	1	3	2

GALLONS PUMPED VERSUS GALLONS BILLED

	Gallons Pumped	Estimated Unmetered Gallons*	Gallons Billed	Percent Accountable
2015-16	352,702,000	46,184,000	254,403,000	85%
2014-15	375,445,000	59,502,000	260,622,000	85%
2013-14	386,675,000	59,198,000	270,427,000	85%
2012-13	445,886,000	116,944,000**	266,859,000	86%
2011-12	329,465,000	70,288,000	259,177,000	86%

* Estimated Unmetered Gallons are for hydrant flushing, watermain flushing, sewer jet machine, street sweeper, Fire Department, water leaks, etc.

**High unmetered gallons are due to the operations during the painting of the East Water Tower.

City of Waverly
Department of Public Works
FY 2015-16

WATER POLLUTION CONTROL

The Water Pollution Control Division operates and maintains the wastewater treatment facilities for the City. These facilities are the treatment plant, main lift station, and nine smaller lift stations. The testing and monitoring of industrial discharges plus disposal of biosolids are also the responsibility of the WPC Division. The efficient operation and maintenance of these facilities are required by permits and monitored by State and Federal agencies, DNR and EPA.

The WPC Facility and staff conducted several tours throughout the school year to elementary, high school, and Wartburg College classes. Staff has also made classroom or site presentations to different classes or interested groups.

This completes a brief overview of the past fiscal year. Although not a complete summary, it does not represent the knowledge and expertise needed to operate and maintain an efficient WPC Facility. It is our method of recycling the very precious resource of water. This is one reason that some cities are referring to their waste treatment facilities as Water Reclamation Facilities.

CURRENT PROJECTS

1. Nutrient Reduction Strategy
- 2.

FUTURE PROJECTS

1. Eastgate Lift Station
2. Flow measurement at each outfall as well as influent.

PROBLEM AREAS OR AREAS OF CONCERN

1. Shortage of qualified and accessible land for biosolids application.
2. The need to upgrade process controls.
3. Budgets must continue to reflect the need to upgrade lift stations and aging equipment.

BIOSOLIDS SPILL

At about 11:00 p.m. on Sunday, December 27, 2015, the Waverly Wastewater Treatment Facility experienced a discharge of approximately 220,000 gallons of stabilized liquefied biosolids from a storage tank. The discharge resulted from a broken pipe inside a pump house.

The liquefied biosolids were contained in a detention basin just west of the treatment facility, in a drainageway crossing the Waverly-Shell Rock Soccer Complex, and in the north-side soccer complex parking lot. Cleanup operations were completed by Denver Underground & Grading for \$20,311 and Tatroe Electric completed all of the electrical repairs for \$82,950. Insurance paid the City \$124,571.

See the following IDNR inspection report for more information and the response letter from WHKS & Co.

JUL 15 2016



STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

July 11, 2016

Stuart Manzel, Wastewater Superintendent
City of Waverly
200 1st Street NE
Waverly, IA 50677

RE: Waverly Wastewater Treatment Facility Inspection- Letter of Non Compliance
NPDES Permit #: 0990001

Enclosed is the report of the recent inspection of the above facility conducted by Amber Sauser of the Field Office #1 staff.

It was noted during the inspection that a number of treatment units remain offline following a sludge line break at the end of 2015. In addition, sludge recordkeeping and effluent flow meter concerns were noted during the inspection and require further information be submitted by the city. Please note these requirements along with recommendations are summarized at the end of the report. A written response explaining measures intended, or taken, to correct the items listed in the requirements section of the attached report is required to be submitted to the DNR Field Office #1 **no later than August 15, 2016.**

If you have any questions about the inspection or report, please contact Ms. Sauser at 563-927-2640 or amber.sauser@dnr.iowa.gov.

Sincerely,

Clark Ott
Environmental Specialist Senior

CC: IDNR 5th Floor Records Center. (w/encl.)
File: WWWaverly
eFile: 09 WW Waverly 060816 ins als

**IOWA DEPARTMENT OF NATURAL RESOURCES
WASTEWATER TREATMENT FACILITY INSPECTION**

NPDES Permit #: 0990001

FACILITY INFORMATION

FACILITY	NAME: Waverly STP		PLANT GRADE: WW3		
	RESPONSIBLE AUTHORITY/OWNER: City of Waverly				
	ADDRESS: 200 1 st Avenue	CITY: Waverly	STATE: Iowa	ZIP: 50677	PHONE: 319/352-6248
RESPONSIBLE OPERATOR	NAME: Stuart Menzel		GRADE: WW 3		CERTIFICATION NUMBER: 3989

DESIGN CAPACITY	AVERAGE MGD: .986(ADW) 2.33 (AWW)	MAXIMUM MGD: 3.8	POUNDS BOD/DAY: 2692	PE (BOD): 16120
NOW TREATING	AVERAGE MGD: 1.19	MAXIMUM MGD 5.2 (6/14)	POUNDS BOD/DAY: 1747 avg./ 3590 (6/15) max	PE (BOD): 13461
	PERIOD REVIEWED: 5/1/2014-5/1/2016	POPULATION SERVED: 9,874 (10,106- 2014 est.)		
RECEIVING STREAM	Cedar River – A1,B(WW1),HH,HQR			

GENERAL DESCRIPTION:	<p>Primary treatment at the Main lift station consists of a bar screen and grit removal. Water is then treated by two primary clarifiers followed with two plastic media trickling (roughing) filters and an intermediate clarifier. Four rotating biological contact (RBC) units follow to three final clarifiers. Wastewater is disinfected with a UV system prior to discharge into the Cedar River.</p> <p>Sludge treatment consists of primary and secondary anaerobic digesters. Sludge is stored onsite until land applied.</p>
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INSPECTION INFORMATION

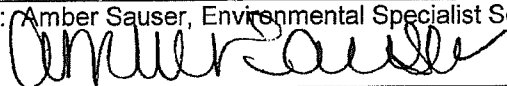
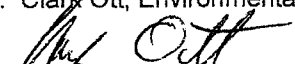
INSPECTION	DATE THIS INSPECTION: 06/08/2016	DATE LAST INSPECTION: 05/06/2014	PURPOSE: Routine Compliance Inspection
PERSONS INTERVIEWED	NAME: Stuart Menzel Glen Vander Kolk		TITLE: Wastewater Superintendent Laboratory Director/WW Operator

NPDES PERMIT COMPLIANCE SUMMARY

SELF-MONITORING	Operation Reports Submitted: <input checked="" type="checkbox"/> Sat. <input type="checkbox"/> Marg.* <input type="checkbox"/> Unsat.*	Required Data on Reports: <input checked="" type="checkbox"/> Sat. <input type="checkbox"/> Marg.* <input type="checkbox"/> Unsat.*	Testing Adequacy: <input checked="" type="checkbox"/> Sat. <input type="checkbox"/> Marg.* <input type="checkbox"/> Unsat.*
EFFLUENT LIMITATIONS	SELF-MONITORING RESULTS: <input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Marginal* <input type="checkbox"/> Unsatisfactory*		
SAMPLES THIS INSPECTION	TYPE: Routine Compliance Evaluation		LAB DATA ATTACHED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	RESULTS: <input type="checkbox"/> Satisfactory <input type="checkbox"/> Marginal* <input type="checkbox"/> Unsatisfactory*		
	VISUAL APPEARANCE OF EFFLUENT: Viewed on 6/22/16 No impact noted	VISUAL APPEARANCE OF RECEIVING STREAM: No impact observed beyond area immediately adjacent to effluent pipe (see photo below)	
COMPLIANCE SCHEDULE	COMPLIANCE WITH SCHEDULE: <input checked="" type="checkbox"/> Sat. <input type="checkbox"/> Marg.* <input type="checkbox"/> Unsat.*	NEXT ITEM DUE: Permit will be reissued to remove CS as information submitted shows system can comply	DATE DUE: NA

* Explain in Comments and Recommendations Section

AUTHENTICATION

INSPECTOR:	NAME: Amber Sauser, Environmental Specialist Senior: 	DATE: 7-12-16
REVIEWER:	NAME: Clark Ott, Environmental Specialist Senior: 	DATE: 7/13/16

**IOWA DEPARTMENT OF NATURAL RESOURCES
WASTEWATER TREATMENT FACILITY INSPECTION**

NPDES Permit #: 0990001

Page 2

FACILITY EVALUATION

Were deficiencies noted or significant observations made during the inspection?

Yes - See Comments Section for Details.

No - No Deficiencies or Significant Observations were Noted.

Lack of Entry - Item not Applicable or not Observed.

Item	Yes	No	Item	Yes	No
1. COLLECTION SYSTEM			9. SLUDGE HANDLING AND DISPOSAL		
a. Operation & Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. Operation and Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Physical Condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	b. Physical Condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Dry Weather Capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	c. Capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Infiltration/Inflow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	d. Effectiveness	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. By-pass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	e. Final Disposal, Solids	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			f. Final Disposal, Liquids	<input type="checkbox"/>	<input type="checkbox"/>
2. LIFT STATION(S) (Collection System)				<input checked="" type="checkbox"/>	
a. Operation and Maintenance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. LAGOON STRUCTURES		
b. Physical Condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. Maintenance	<input type="checkbox"/>	<input type="checkbox"/>
c. Capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	b. Physical Condition	<input type="checkbox"/>	<input type="checkbox"/>
d. Reliability/Emergency Operation	<input type="checkbox"/>	<input type="checkbox"/>	c. Capacity	<input type="checkbox"/>	<input type="checkbox"/>
3. INDUSTRIAL WASTE PRE-TREATMENT			d. Cell Configuration	<input type="checkbox"/>	<input type="checkbox"/>
a. Waste Toxicity/Compatibility	<input type="checkbox"/>	<input checked="" type="checkbox"/>	e. Storage/Drawdown Management	<input type="checkbox"/>	<input type="checkbox"/>
b. Strength Reduction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11. FLOW MEASUREMENT		
c. Affect on Treatment Plant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. Operation & Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. PRE-TREATMENT UNITS (This Facility)			b. Capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a. Operation and Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	c. Continuity	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Physical Condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	d. Location/Method/Effectiveness	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12. PUMPING		
d. Effectiveness	<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. Operation & Maintenance	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. PRIMARY TREATMENT			b. Physical Condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a. Operation and Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	c. Capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Physical Condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	d. Reliability/Emergency Operation	<input type="checkbox"/>	<input type="checkbox"/>
c. Capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13. MISCELLANEOUS		
d. Sludge/Scum Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. Location	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
e. Effectiveness	<input type="checkbox"/>	<input checked="" type="checkbox"/>	b. Odors	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. SECONDARY TREATMENT			c. Emergency Operation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a. Operation & Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	d. By-Pass(es)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Physical Condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	e. Equipment	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	f. Buildings & Grounds	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Recirculation	<input type="checkbox"/>	<input type="checkbox"/>	g. Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Freezing	<input type="checkbox"/>	<input type="checkbox"/>	14 STAFFING, OPERATOR CERTIFICATION		
f. Effectiveness	<input type="checkbox"/>	<input checked="" type="checkbox"/>	a. Operator, Direct Responsibility	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. FINAL SETTLING			b. Shift Operator(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a. Operation & Maintenance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	c. General Staffing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Physical Condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15 SUPPLEMENTARY		
c. Capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	a. Permit Availability	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Effectiveness	<input type="checkbox"/>	<input checked="" type="checkbox"/>	b. Operation Reports Availability	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. SUPPLEMENTARY TREATMENT			c. Equipment Records Maintenance	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a. Operation & Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	d. Previously Noted Deficiencies	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Physical Condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	e. Improvements	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	f. Domestic/Industrial Growth	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Effectiveness	<input type="checkbox"/>	<input checked="" type="checkbox"/>	g. Other	<input type="checkbox"/>	<input type="checkbox"/>

GENERAL FACILITY DESCRIPTION

Wastewater is collected and pumped from lift stations or gravity flows to the Main lift station. Primary treatment at the Main lift station consist of a bar screen and grit removal. Flow is measured and influent samples are collected at the force main from the Main lift station. Wastewater is then pumped from the Main lift station to the treatment plant. Wastewater is split between two primary clarifiers. Effluent from the primary clarifiers is pumped to two plastic media trickling filters that are operated in parallel. Flow from the trickling filters flows to an intermediate clarifier.

During normal flows all wastewater enters the intermediate clarifier prior to entering the rotating biological contact (RBC) units. During periods of high flows a portion of the wastewater from the trickling filters bypasses the intermediate clarifier and flows directly into the RBC units. Four RBC units can be operated in a series or in parallel units of two. At the time of this inspection, the RBC units were not operational. Following treatment in the RBC units, wastewater flows to three final clarifiers. Wastewater then flows through a UV disinfection system and is discharge through a pipe for approximately ½ mile before entering the Cedar River. A portion of the wastewater effluent is pumped from the UV disinfection system to a holding pond at the nearby golf course during irrigation season.

Sludge is treated by primary and secondary anaerobic digesters. Sludge is stored onsite until land applied.

NPDES PERMIT COMPLIANCE:

The monthly operation reports (MORs) were reviewed for the reporting period from May 1, 2014 through May 1, 2016.

Self-Monitoring — The reports were submitted regularly and on time; and it appears that the wastewater testing parameters of the NPDES permit are being consistently entered at the required frequencies on the operating reports.

Design Capacity/Effluent Limitations — During the above mentioned reporting period, the following observations were made:

- The design influent flow rates are 2.33 MGD AWW and 3.8 MGD MWW. The AWW was not exceeded during the review period and the MWW was exceeded during June 2014.
- Required TSS and BOD removal was met during all months of the review period.
- One violation of total nitrogen was recorded in December 2015. The average and maximum mass limits (473.3 and 774.7 respectively) were exceeded with values of 885 and 3319 lbs/day.

FACILITY EVALUATION:

1. COLLECTION SYSTEM

Operation & Maintenance – In December 27, 2015 a sludge line burst sending sludge throughout the pump house. Repairs to the building and electronics are ongoing. To date, the mixing pumps, RBC units and final clarifier are not operating. It is anticipated this work will be completed within the next few weeks.

Infiltration/Inflow – It was reported that a few areas in town continue to contribute to I&I. The department recommends that 20-25% of the collections system be televised per year.

By-pass – During the review period Waverly reported nine basement backup events and four bypass events. One of the bypass events occurred during private sewer line maintenance but was reported as it reached beyond the property line. The other two events were related to obstruction in the sewer lines resulting in a less than 100 gallon bypass and a est. 3,000 gallon event. The fourth event was related to the failure of the sludge line.

2. LIFT STATION(S) (Collection System)

This system has nine lift stations in the collection system in addition to Main lift.

29 th Avenue	Eastgate	Cedar Lane South
Cedar Lane North	Horton Road	Ridgewood (also called Greenfield Ave.)
12 th Street	Cedar Glyn	6 th Avenue

The Cedar Land South lift station serves two private residences and uses a visual/audible warning system. The Ridgewood and 6th Avenue lift station are not equipped with emergency generators.

3. INDUSTRIAL WASTE PRE-TREATMENT

The facility permit lists one significant industrial contributor to the Waverly facility, Nestle USA. During the previous inspection, Nestle USA exceeded the TKN limits of the treatment agreement during nine (9) months; and exceeded the TSS limits during eight (8) months. The pH minimum limit was exceeded during one month. During the current review period, there were a total of 18 violations. Nestle exceeded the TKN limits seven (7) times and the TSS limits eleven (11) times. Violations were present during eleven (11) of the 25 month review period or 44% of the time during the review period. Nestle USA was not in significant non compliance during the review period.

The City's enforcement program consists of penalties for any exceedance of the pretreatment agreement for Nestle USA. The City must consider what other steps are available to enforce its agreement with Nestle USA. The City must send the company a notice of violation requiring the company to respond to the notice with its plan to address the violations and prevent future violations anytime they are considered to be in significant noncompliance. If there are repeated violations, the City must have escalating enforcement instruments to include taking legal action against the company.

It was reported that the City is continuing to work with Nestle USA to decrease exceedances. The city is encouraged to review the industrial contributor enforcement protocol.

The City is also encouraged to routinely survey its existing industrial customers to determine if they operate any processes that are considered categorical industries under the federal pretreatment standards (40 CFR 403). The DNR can provide sample templates for this survey.

4. PRE-TREATMENT UNITS (This Facility)

Operation and Maintenance – A mechanical bar screen and grit removal system are located at the main lift station. The facility appears to be well maintained.

5. PRIMARY TREATMENT

Operation and Maintenance – Primary settling occurs in two 70,000 gallon clarifiers.

6. SECONDARY TREATMENT

Operation & Maintenance – In December 27, 2015 a sludge line burst sending sludge throughout the pump house. Repairs to the building and electronics are ongoing. To date, the mixing pumps, RBC units and final clarifier are not operating. It is anticipated this work will be completed within the next few weeks.

Secondary treatment consists of two, 50' diameter, covered trickling filter towers, followed by one 120,000 gallon intermediate clarifier and treatment in four, covered RCB units.

During the previous inspection, it was noted that an RBC unit was offline. The city should ensure that all systems are functioning through routine maintenance and timely repairs to maintain effluent compliance.

7. FINAL SETTLING

Operation & Maintenance – Final setting occurs in three, covered, 105,000 gallon, final clarifiers run in series. To date, one of those clarifiers remains out of service as noted in the previous section.

8. SUPPLEMENTARY TREATMENT

Operation & Maintenance – Disinfection is provided by a 40,000 gallon basin equipped with two banks of 40 ultraviolet lights. Only 1 bank was operational during this inspection. It was noted that both banks should be fully functional by July 1, 2016.

Routine maintenance and repairs should be conducted on this unit to ensure proper redundancy and capacity is maintained at all times.

9. SLUDGE HANDLING AND DISPOSAL

Operation and Maintenance – Sludge is treated in two, 175,000-gallon, anaerobic digesters. The primary digester is heated, maintaining a temperature of between 93^o and 95^o F. The secondary digester is not heated. During this inspection the sludge plan was reviewed and the digesters were inspected. Supernatant is rerouted through the treatment plant.

All the management practices for Class II sludge are required to be addressed in the long range plan and adhered to when land applying. A copy of all of the management practice for Class II sludge is attached. The City is reminded that responsibility for maintaining compliance with state and federal sewage sludge land application requirements lies with the City.

Final Disposal, Solids –

Sludge is being land applied as Class II sludge. It was reported that pathogen reduction was obtained by anaerobic digestion. Iowa Administrative Code Chapter 67, Subrule 67.11(1)"c" requires the following:

Anaerobic digestion. Sewage sludge is treated in the absence of air for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 15 days at 35 to 55 degrees Celsius and 60 days at 20 degrees Celsius. The facility must document daily temperatures and calculate mean cell residence time to demonstrate that the process meets the requirement for anaerobic digestion. This was noted in the previous report and continues to be a deficiency. Provide a written response by **August 15, 2016** verifying that this information is being calculated and records maintained.

Pit Pros continues to land apply sludge for the city. This office has worked with Pit Pros on a number of occasions to ensure fields were approved prior to land application. They have also worked with DNR to improve their recordkeeping verifying for the city that nutrients were applied at agronomic rates. Options to further improve recordkeeping to ensure sludge is applied at no more than the agronomic nitrogen uptake rate was further discussed during this inspection.

It was reported that all sludge was incorporated in 2014 and 2015. It should be noted that sludge hauled in late 2015/early 2016 was able to be injected. In the future, the City is encouraged to also demonstrate volatile solids reduction of 38%. Having an alternative vector control process will ensure compliance when weather or soil conditions prevent injection. It was initially reported that volatile solids reductions was obtained during the December 2015- January 2016 land application events. However, documentation wasn't submitted to verify this data. Please note that this information must be submitted with the annual report if volatile solids reduction is used.

The only application event identified in the 2015 annual sludge report was from the time around the sludge line break. Therefore, it was noted that sludge was not being hauled until late December. The results submitted with the plan also correspond to samples collected in 2016. Hauling on snow covered or frozen ground should be avoided per IAC 567-67.8(2)h. When hauling occurs on snow covered and/or frozen ground, the annual report should ensure that all fields had less than 5 percent slope. You are reminded to ensure that the management practices required for class II sludge are also outlined in the annual report.

The annual plan was received by this office February 22, 2016. You are reminded that plans should be submitted to the department by February 19 of each year for the previous calendar year.

10. LAGOON STRUCTURES

No comments

11. FLOW MEASUREMENT

Operation & Maintenance – Influent flow measurements for this facility are conducted at the Main Lift station. A Parshall flume is located this facility and a Badger chart recorded and flow meter are used to records flows. The department requires that all flow meters are calibrated annually at a minimum. Maintenance records should maintain calibration records.

Location/Method/Effectiveness – Effluent is still being measured off of a time clock on outfall 002. Outfall 001 is required to collect daily total flow. Please respond by August 15, 2016 as to how this requirement will be met in a timely manner.

12. PUMPING

No comments

13. MISCELLANEOUS

Location – The effluent piping is located in a remote area. Observing the effluent at this location should be routinely observed to verify the impact to the river.

By-Pass(es) – Recent rule changes now require basement backup and bypass events to be reported to the department within 24 hours of notification/discovery. In addition, the written report should be submitted within five days as opposed to the former rule which allowed reporting with the discharge monitoring report.

14. STAFFING, OPERATOR CERTIFICATION

General Staffing- Stuart Menzel is the operator-in-responsible charge. Mr. Menzel maintains a Grade 3 wastewater treatment certification. Terry Corcoran maintains a Grade 2 wastewater treatment certification. Glenn Vander Kolk maintains a Grade 1 wastewater treatment certification.

15. SUPPLEMENTARY

No comments

SUMMARY OF REQUIRMENTS

A number of treatment units remain out of service from the sludge line break in December of 2015. Provide a written timeline for all repairs to this office by August 15, 2016.

The facility must document daily temperatures and calculate mean cell residence time to demonstrate that the process meets the requirement for anaerobic digestion. This was noted in the previous report and continues to be a deficiency. Provide a written response by August 15, 2016 verifying that this information is being calculated and records maintained.

Outfall 001 is required to record daily total flow. Please respond by August 15, 2016 as to how this requirement will be met in a timely manner.

Ensure the annual sludge report is submitted to this office by February 19 of each year and includes all the information outlined in IAC 567-67.

SUMMARY OF RECOMMENDATIONS

The department recommends that 20-25% of the collections system be televised per year.

Annually calibrate flow meters.

The city is encouraged review the industrial contributor enforcement protocol.

The City is encouraged to routinely survey existing industrial customers to determine if they've made any changes that would result in them being considered categorical industries under the federal pretreatment standards.

Effluent Limit Violations 5/1/2014 - 5/31/2016

WAVERLY CITY OF STP - 0990001

WAVERLY

EPA #:IA0033197

	AVERAGE - LBS/DAY	MAXIMUM - LBS/DAY	MAXIMUM - MGD	Parameter
Limit	DMR	Limit	DMR	Monthly Total
473.3	885.544536	774.7	3319.1532	3.8
				5.29
				1
				2
NESTLE USA WAVERLY				
Outfall: 001				
16	16.8404665	24	25.7333144	2
16	17.4255302			1
400	458.5748145			1
16	77.7243697	24	583.319249	2
400	569.2520469	1000	1275.427043	2
400	442.557197	1000	1738.450999	2
		1000	1062.56182	1
		1000	1227.344282	1
		24	37.3739252	1
		1000	1080.162948	1
400	520.9391415	1000	1868.370168	2
		24	27.8593446	1
400	511.7044123			1

Total: 21

Total Violations: 21

2905 South Broadway
Rochester, MN 55904-5515
Phone: 507.288.3923
Fax: 507.288.2675
Email: rochester@whks.com
Website: www.whks.com



August 12, 2016

Ms. Amber Sauser, Environmental Specialist Senior
Iowa Department of Natural Resources, Field Office #1
909 West Main, Suite 4
Manchester, Iowa 52057

RE: City of Waverly – NPDES Permit #0990001
Response to Wastewater Treatment Facility Inspection / Letter of Non-Compliance

Dear Ms. Sauser:

On behalf of the City of Waverly, this letter serves as a response to the Iowa Department of Natural Resources (IDNR) letter dated July 11, 2016, regarding the City's wastewater treatment facility and several deficiencies noted by IDNR Staff during a recent inspection. Four (4) Required Actions were noted during the inspection and outlined on page 7 of the Inspection Report. A copy of the report is attached for reference. Below is a summary of actions recently taken by City Staff to address these items:

Required Action No. 1 – A number of treatment units remain out of service from the sludge line break in December of 2015. Provide a written timeline for all repairs to this office by August 15, 2016.

Since the sludge line break in December of 2015, many efforts have occurred at the facility to repair the damaged treatment equipment and to bring all treatment units back online. The replacement of electrical equipment in the sludge building that was damaged during the sludge line break was finished in July 2016. Startup for Rotating Biological Contactors (RBCs) No. 1 and No. 2 occurred in early August 2016. RBCs No. 3 and No. 4 are currently offline and will need to complete media drying (to prevent unbalanced rotation, as recommended by the equipment manufacturer) prior to being put back into service. This media drying phase is expected to take approximately 8-10 weeks. All RBCs are expected to be back in service by November 2016. It should be noted that the facility has been able to meeting its current effluent discharge limits for BOD, TSS, and ammonia-nitrogen throughout 2016 without the RBCs in operation.

Repairs to the sludge mixing pumps are expected to be complete in August 2016. Once the sludge mixing pumps are operational, the biosolids tank can be mixed prior to loadout. Fall loadout is tentatively scheduled for October 2016.

Several additional measures have been taken by the City to improve the biosolids loadout process and minimize the potential for future sludge line breaks. The City has added joint restraints to all process sludge piping and fittings in the sludge building and the control building. In addition, a new valve has been installed between the biosolids tank and the sludge building to isolate the biosolids tank from the sludge building if necessary. Lastly, the City is investigating alternatives to prevent rapid closing of the existing sludge loadout valve for future loadout events. These improvements are expected to be complete prior to the biosolids loadout tentatively scheduled for October 2016.

Required Action No. 2 – The facility must document daily temperatures and calculate mean cell residence time to demonstrate that the process meets the requirement for anaerobic digestion. Provide a written response by August 15, 2016 verifying that this information is being calculated and records maintained.

Based on discussions with City Staff, daily digester temperatures are measured and recorded as part of the operational process at the facility. WHKS will coordinate with City Staff to include a mean cell residence time (MCRT) calculation as part of the operational process. This MCRT calculation will be performed and included in the facility's sludge documentation moving forward.

Required Action No. 3 – Outfall 001 is required to record daily total flow. Please respond by August 15, 2016 as to how this requirement will be met in a timely manner.

The City currently utilizes influent flow measurement as its primary flow measurement technique for the facility. For effluent flow, the facility has two outfalls. Outfall 001 is the primary outfall to the Cedar River where the majority of treated effluent is discharged. Outfall 002 is a holding pond at a nearby golf course, where the treated effluent is reused via irrigation.

Effluent flow for Outfall 001 is currently calculated by subtracting the measured flow to Outfall 002 from the measured influent flow to the facility in lieu of a standalone effluent flow measurement device. Outfall 002 flow is currently measured at the golf course via recorded pumping time and an assumed pumping rate to the holding pond.

Direct measurement of the effluent flow for Outfall 001 would require the installation of a new flow measurement device following the existing ultraviolet disinfection system, which would need to include the construction of a new concrete structure connected to the outfall pipe to house the flow measurement device. This would result in a significant construction project for the facility.

We feel that the subtraction method (Outfall 001 Flow = Influent Flow – Outfall 2 Flow) is a reasonable technique for measuring effluent flow for Outfall 001 for the Waverly facility. In order to increase the accuracy of the flow measurement for Outfall 002, the City is proposing to utilize a hydrant meter on the piping to the golf course holding pond in lieu of measuring pump run time. The influent flow measurement device will be calibrated periodically to maintain accuracy as well. We respectfully request that the IDNR allow the facility to continue utilizing this subtraction method with the hydrant meter modification described above for flow measurement of Outfall 001.

Required Action No. 4 – Ensure the annual sludge report is submitted to this office by February 19 of each year and includes all the information outlined in IAC 567-67.

The annual sludge report will be submitted to IDNR Field Office No. 1 by February 19th of each year, and will include all information as outlined in IAC 567-67.

Ms. Amber Sauser, Environmental Specialist Senior
August 12, 2016
Page 3 of 3

The City of Waverly plans to continue address the items discussed above in order to maintain compliance with its operating permit. Please approve the City's response to these four (4) items, and let us know if you have any questions or require additional information.

Sincerely,

WHKS & co.

Kevin J. Graves, P.E.
Associate

Enclosure: IDNR Inspection Report dated 7/11/16

cc: Mike Cherry, P.E. – City of Waverly
Stuart Menzel, City of Waverly
Scott Sweet, WHKS

City of Waverly

MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Date: January, 2016

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS				BOD 5 DAY 20 °C		TRICKLING FILTER RECIRC. FLOW MGD				TOTAL SUSPENDED SOLIDS				RAW TEMP. ° F.				
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L	INF. PHOS. MG/L	INF. PHOS. LBS/DAY	INF. TOTAL N (as N) MG/L	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	INF. MG/L	INF. LBS/DAY	RAW ph						
1	Fri.	3.090	97	6.93														7.5	53	
2	Sat.	1.160																		
3	Sun.	1.130																		
4	Mon.	1.170	97	6.94	265	2660												7.4	54	
5	Tues.	1.230	97	6.93														7.5	54	
6	Wed.	1.220	97	6.95			180	1831									318	7.4	54	
7	Thurs.	1.780	97	6.94														7.4	54	
8	Fri.	1.990	97	6.95	338	2590	200	3319									334	7.4	54	
9	Sat.	1.440																		
10	Sun.	1.220																		
11	Mon.	1.180	97	6.90	330	2610												7.4	53	
12	Tues.	1.150	97	6.91														7.4	53	
13	Wed.	1.370	97	6.89			196	2289									351	7.4	53	
14	Thurs.	1.320	97	6.89														7.4	53	
15	Fri.	1.200	97	6.87	300	2290	209	2092									342	7.4	53	
16	Sat.	1.180																		
17	Sun.	1.140																		
18	Mon.	1.140	97	6.96	308	2310												7.4	53	
19	Tues.	1.090	97	6.96														7.4	53	
20	Wed.	1.100	97	6.95			176	1615									268	7.4	53	
21	Thurs.	1.210	97	6.97														7.4	53	
22	Fri.	1.130	97	7.00	308	2400	186	1753									334	7.4	53	
23	Sat.	1.070																		
24	Sun.	1.050																		
25	Mon.	1.050	97	6.90	323	2380												7.4	52	
26	Tues.	1.100	97	6.90														7.4	52	
27	Wed.	1.090	97	6.89			229	2082									320	7.4	53	
28	Thurs.	1.110	97	6.88														7.4	52	
29	Fri.	1.070	97	6.88	300	2370	178	1588									270	7.4	53	
30	Sat.	1.120																		
31	Sun.	1.120																		

TOTAL	39.420						27.540	1554.0	16520	198.00	1515.05	1222.44	2537.0	27137					
AVERAGE	1.272		6.9				0.888	194.3	2085	49.50	378.76	305.61	317.1	3392				7.4	53.1
MAX	3.090		7.0				1.110	229.0	3319	56.33	547.30	443.32	351.0	5543				7.5	54.0
MIN	1.050		6.9				-0.930	176.0	1588	39.18	298.17	250.45	268.0	2409				7.4	52.0

7 DAY AVERAGE																			
WEEK 1	1.540						0.620	180.0	1831	53.32	343.91	277.77	318.0	3236				7.4	53.8
WEEK 2	1.381						0.779	198.0	2779	56.33	547.30	443.32	342.5	4777				7.4	54.0
WEEK 3	1.151						1.009	192.5	1853	49.17	325.68	250.45	305.0	2941				7.4	54.0
WEEK 4	1.086						1.074	207.5	1917	39.18	298.17	250.90	327.0	3028				7.4	52.4

Signature: _____
Certification Number: 3989

City of Waverly

MONTHLY MONITORING REPORT

DISCHARGE SERIAL # 001 - # 002

Date: February, 2016

Facility Number 0990001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS				BOD 5 DAY 20 °C		TOTAL SUSPENDED SOLIDS					RAW TEMP. ° F.						
		FLOW MGD	TEMP °F	ph	VOL. ACID MGD	ALKALIN. MGD	TRICKLING FILTER RECIRC. FLOW MGD	INF. MGD/L	INF. LBS/DA Y	INF. PHOS. MGD/L	INF. PHOS. LBS/DA Y	INF. TOTAL N (as N) MGD/L		INF. TKN (as N) MGD/L	INF. TKN (as N) LBS/DAY	INF. MGD/L	INF. LBS/DA Y	RAW ph	
1	Mon.	1.080	97	6.89	293	2350	1.08										7.4	51	
2	Tues.	1.250	97	6.90			0.91										7.4	51	
3	Wed.	0.940	97	6.90			1.22	160	1254	4.81	37.71	31.40	246.16	25.40	199.13	220	1725	7.4	51
4	Thurs.	1.040	97	6.89			1.12										7.4	51	
5	Fri.	1.040	97	6.84	315	2400	1.12	154	1336							253	2194	7.4	51
6	Sat.	1.040					1.06												
7	Sun.	1.100					1.19												
8	Mon.	0.970	97	6.87	308	2420	1.14										7.4	51	
9	Tues.	1.020	97	6.88			1.20	184	1473	5.22	41.79	39.10	313.05	25.60	204.96	328	2626	7.4	51
10	Wed.	0.960	97	6.86			1.16										7.5	51	
11	Thurs.	1.000	97	6.85			1.26	188	1411							283	2124	7.5	51
12	Fri.	0.900	97	6.89	300	2300	1.28												
13	Sat.	0.880					2.07												
14	Sun.	0.095					1.15												
15	Mon.	1.010	97	6.89	300	2340	1.14										7.5	51	
16	Tues.	1.020	97	6.86			1.18	211	1725	6.40	52.31	32.10	262.36	27.40	223.95	338	2763	7.5	51
17	Wed.	0.980	97	6.88			0.98										7.5	51	
18	Thurs.	1.180	97	6.88			0.44	204	2926							299	4289	7.5	51
19	Fri.	1.720	97	6.91	293	2350	0.63												
20	Sat.	1.530					0.72												
21	Sun.	1.440					0.84												
22	Mon.	1.320	97	6.90	300	2350	0.88										7.5	51	
23	Tues.	1.480	97	6.90			0.84	153	1940	5.72	72.51	26.00	329.60	21.50	272.55	255	3233	7.4	51
24	Wed.	1.520	97	6.88			0.82										7.5	50	
25	Thurs.	1.540	97	6.91			0.70	157	1912							280	3409	7.5	50
26	Fri.	1.460	97	6.92	375	2290	0.67												
27	Sat.	1.490					0.88												
28	Sun.	1.480					0.62												
29	Mon.	1.540	97	6.90	345	2340	0.62										7.4	50	
30																			
31																			

TOTAL	34.025						28.615	1411.0	13977	204.32	1151.17	900.59	2256.0	22363					
AVERAGE	1.173	97.0	6.9				0.987	176.4	1747	51.08	287.79	225.15	282.0	2795			7.5	50.8	
MAX	1.720	97.0	6.9				2.065	211.0	2926	72.51	329.60	272.55	338.0	4289			7.5	51.0	
MIN	0.095	97.0	6.8				0.440	153.0	1254	37.71	246.16	199.13	220.0	1725			7.4	50.0	

7 DAY AVERAGE																			
WEEK 1	1.070						1.090	157.0	1295	37.71	246.16	199.13	236.5	1960			7.4	51.0	
WEEK 2	0.832						1.328	186.0	1442	41.79	313.05	204.96	305.5	2375			7.5	51.0	
WEEK 3	1.269						0.891	207.5	2325	52.31	262.36	223.95	318.5	3526			7.5	51.0	
WEEK 4	1.470						0.690	155.0	1926	72.51	329.60	272.55	267.5	3321			7.5	50.4	

Signature: _____
 Certification Number: 3989

City of Waverly

MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

Date: March, 2016

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS				BOD 5 DAY 20 °C		TOTAL SUSPENDED SOLIDS					RAW pH	RAW TEMP. ° F.						
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L	TRICKLING FILTER RECIRC. FLOW MGD	INF. MG/L	INF. LBS/DA Y	INF. PHOS. MG/L	INF. PHOS. LBS/DA Y	INF. TOTAL N (as N) MG/L			INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	INF. LBS/DA Y			
1	Tues.	1.460	97	6.99			0.70	147	1802	4.45	54.56	27.70	339.60	19.00	232.94	236	2893	7.4	50	
2	Wed.	1.470	97	6.98			0.69	147	1802									7.5	50	
3	Thurs.	1.390	97	7.00			0.77											7.5	50	
4	Fri.	1.410	97	7.10	315	2660	0.75	147	1729								306	3598	7.6	50
5	Sat.	1.330					0.83													
6	Sun.	1.460					0.70													
7	Mon.	1.510	97	7.00	330	2610	0.65												7.5	50
8	Tues.	1.510	97	7.04			0.65												7.6	50
9	Wed.	1.510	97	7.02			0.65	185	2330	4.94	62.21	30.10	379.06	21.50	270.76	330	4156	7.5	50	
10	Thurs.	1.540	97	7.05			0.62												7.5	50
11	Fri.	1.490	97	7.00	315	2600	0.46	184	2286								290	3604	7.5	51
12	Sat.	1.350					0.81													
13	Sun.	1.500					0.66													
14	Mon.	1.340	97	6.99	323	2640	0.82												7.5	51
15	Tues.	1.620	97	7.02			0.54												7.5	51
16	Wed.	1.720	97	7.00			0.44	186	2668	4.55	65.27	34.00	487.72	25.40	364.36	347	4978	7.5	51	
17	Thurs.	1.820	97	7.00			0.34	147	2084										7.5	51
18	Fri.	1.700	97	6.99	353	2580	0.46	147	2084								260	3686	7.6	51
19	Sat.	1.660					0.50													
20	Sun.	1.530					0.63													
21	Mon.	1.540	97	6.97	338	2610	0.62												7.6	51
22	Tues.	1.490	97	6.96			0.67	129	1603								224	2784	7.6	51
23	Wed.	1.800	97	6.98			0.36			3.37	50.59	26.80	402.32	18.20	273.22	225	3171	7.6	51	
24	Thurs.	1.690	97	6.96	308	2360	0.47	123	1734										7.6	51
25	Fri.	1.660	97	6.98			0.50												7.6	51
26	Sat.	1.410					0.75													
27	Sun.	1.490					0.67													
28	Mon.	1.600	97	6.88	323	2390	0.56												7.5	51
29	Tues.	1.660	97	6.89			0.50												7.5	51
30	Wed.	1.800	97	6.87			0.36	164	2462	6.19	92.92	29.10	436.85	23.20	348.28	311	4669	7.5	51	
31	Thurs.	1.940	97	6.87			0.22												7.5	51

TOTAL	48,400	18,560	1412.0	16698	325.55	2045.55	1489.55	2529.0	33539
AVERAGE	1.561	0.599	156.9	2078	65.11	409.11	297.91	281.0	3727
MAX	1.940	0.830	186.0	2668	92.92	487.72	364.36	347.0	4978
MIN	1.330	0.220	123.0	1603	50.59	339.60	232.94	224.0	2784

7 DAY AVERAGE	1.433	0.727	147.0	1765	54.56	339.60	232.94	271.0	3246
WEEK 1	1.463	0.697	184.5	2308	62.21	379.06	270.76	310.0	3880
WEEK 2	1.656	0.504	166.5	2376	65.27	487.72	364.36	303.5	4332
WEEK 3	1.591	0.569	126.0	1668	50.59	402.32	273.22	224.5	2977
WEEK 4		0.569	126.0	1668	50.59	402.32	273.22	224.5	2977

Signature: _____
Certification Number: 3989

City of Waverly

MONTHLY MONITORING REPORT

DISCHARGE SERIAL # 001 - # 002

Date: April, 2016

Facility Number: 0990001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS			TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. MG/L	INF. PHOS. LBS/DA Y	INF. TOTAL N (as N) LBS/DA Y	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	TOTAL SUSPENDED SOLIDS		RAW TEMP. ° F.		
		FLOW MGD	TEMP °F	ph		VOL. ACID MG/L	ALKALIN. MG/L						INF. MG/L	INF. LBS/DA Y			
1	Fri.	1.920	97	6.87	323	2300	0.24	140	2242				210	3363	7.5	50	
2	Sat.	1.870					0.29										
3	Sun.	2.040					0.12										
4	Mon.	1.740	97	6.91	323	2340	0.42								7.6	50	
5	Tues.	1.770	97	6.89			0.39								7.6	50	
6	Wed.	1.700	97	6.91			0.46	126	1786		13.00	184.31	196	2779	7.6	50	
7	Thurs.	1.740	97	6.88			0.42						204	2654	7.6	50	
8	Fri.	1.560	97	6.89	165	1800	0.62	137	1782						7.6	50	
9	Sat.	1.540					0.64										
10	Sun.	1.520					0.64										
11	Mon.	1.410	97	6.93	180	1960	0.75								7.5	52	
12	Tues.	1.450	97	6.92			0.71	189	2286		19.00	232.94	187	2261	7.5	52	
13	Wed.	1.470	97	6.91			0.69								7.5	52	
14	Thurs.	1.400	97	6.94	323	2160	0.76	128	1495				197	2300	7.5	53	
15	Fri.	1.310	97	6.96			0.85								7.5	53	
16	Sat.	1.350					0.81										
17	Sun.	1.240					0.92										
18	Mon.	1.350	97	6.90			0.81								7.4	54	
19	Tues.	1.260	97	6.92	338	2210	0.90								7.4	54	
20	Wed.	1.310	97	6.89			0.85	159	1737		22.00	240.36	249	2720	7.5	53	
21	Thurs.	1.300	97	6.90			0.86								7.5	53	
22	Fri.	1.170	96	6.89	338	2300	0.99	130	1269				162	1581	7.4	53	
23	Sat.	1.130					1.03										
24	Sun.	1.170					0.99										
25	Mon.	1.210	97	6.98	323	2320	0.95								7.4	53	
26	Tues.	1.170	97	7.00			0.99								7.4	53	
27	Wed.	1.310	97	6.99			0.85	167	1825		20.50	223.97	212	2316	7.5	53	
28	Thurs.	1.250	97	6.99			0.91								7.5	53	
29	Fri.	1.110	97	7.01	353	2400	1.05	148	1370				208	1926	7.5	53	
30	Sat.	1.970					0.19										
31																	

TOTAL AVERAGE	43.740	97.0	6.9	296.2	2198.9	21.060	1324.0	15791	209.41	1137.02	881.58	1825.0	21900	7.6	50.0
MAX	2.040	97.0	7.0	353.0	2400.0	1.050	189.0	2286	59.65	307.72	240.36	249.0	3363	7.6	54.0
MIN	1.110	96.0	6.9	165.0	1800.0	0.120	126.0	1269	42.54	268.76	184.31	162.0	1581	7.4	50.0

7 DAY AVERAGE	1.8	97.000	6.9			0.334	133.0	2014	53.03	276.47	184.31	203.0	3071	7.6	50.0
WEEK 1	1.5	97.000	6.9			0.681	151.3	1854	42.54	307.72	232.94	196.0	2405	7.5	50.0
WEEK 2	1.3	97.000	6.9			0.857	159.0	1737	59.65	284.06	240.36	249.0	2720	7.5	50.0
WEEK 3	1.2	96.800	7.0			0.959	148.5	1547	54.19	268.76	223.97	187.0	1948	7.4	53.0

Signature: _____
 Certification Number: 3989

City of Waverly
MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001
 Note: 0.0 = <MDL of 0.5

Date: May, 2016

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS				TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		TOTAL SUSPENDED SOLIDS					RAW ph	RAW TEMP. ° F.						
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L		ALKALIN. MG/L	INF. MG/L	INF. LBS/DA Y	INF. PHOS. MG/L	INF. PHOS. LBS/DA Y	INF. TOTAL N MG/L	INF. TKN (as N) MG/L			INF. TKN (as N) LBS/DAY	INF. LBS/DA Y				
1	Sun.	1.860				0.30															
2	Mon.	1.340	96	6.98		0.82														7.5	53
3	Tues.	1.390	96	7.00	338	2380	0.77	153	1774						186		2156		7.5	53	
4	Wed.	1.280	96	7.00			0.88												7.5	53	
5	Thurs.	1.340	96	6.99	360	2600	0.82	120	1341						186		2079		7.4	53	
6	Fri.	1.260	96	6.99			0.90												7.4	53	
7	Sat.	1.140					1.02														
8	Sun.	1.170					0.99														
9	Mon.	1.260	97	7.00	345	2610	0.90												7.4	54	
10	Tues.	1.210	96	6.98			0.95												7.4	54	
11	Wed.	1.280	96	6.98			0.88	163	1740						213		2274		7.5	54	
12	Thurs.	1.260	96	6.99			0.90												7.5	54	
13	Fri.	1.340	96	6.98	450	2730	0.82	92	1028						125		1397		7.5	54	
14	Sat.	1.220					0.94														
15	Sun.	1.320					0.84														
16	Mon.	1.180	96	6.99			0.98												7.5	54	
17	Tues.	1.180	96	6.98	428	2690	0.98	192	1890						247		2431		7.5	54	
18	Wed.	1.210	96	7.00			0.95												7.5	54	
19	Thurs.	1.220	96	6.96	375	2570	0.94	86	875						125		1272		7.5	54	
20	Fri.	1.140	96	6.96			1.02												7.5	55	
21	Sat.	1.100					1.06														
22	Sun.	1.130					1.03														
23	Mon.	1.150	97	7.10	390	2580	1.01												7.6	55	
24	Tues.	1.130	97	7.08			1.03	170	1602						116		1093		7.8	55	
25	Wed.	1.180	97	7.11			0.98												7.8	55	
26	Thurs.	1.300	97	7.13	525	2890	0.86	72	781						80		867		8.0	55	
27	Fri.	1.100	97	7.12			1.06												8.0	55	
28	Sat.	1.150					1.01														
29	Sun.	1.120					1.04														
30	Mon.	1.240	97	7.10			0.92												7.9	56	
31	Tues.	1.640	97	7.10	488	2810	0.52												7.8	56	

TOTAL	38,840					28.120		1048.0	11030		160.86		1060.85		950.69	1278.0	13569			
AVERAGE	1.253	96.4	7.0			0.907		131.0	1379		40.22		265.24		237.67	159.8	1696		7.6	54.2
MAX	1.860	97.0	7.1			1.060		192.0	1890		71.74		357.62		306.38	247.0	2431		8.0	56.0
MIN	1.100	96.0	7.0			0.300		72.0	781		20.37		193.81		184.03	80.0	867		7.4	53.0

7 DAY AVERAGE						0.787		136.5	1557		37.47		357.62		306.38	186.0	2117		7.5	53.0
WEEK 1	1.373					0.911		127.5	1384		71.74		297.84		260.47	169.0	1835		7.5	53.0
WEEK 2	1.249					0.967		139.0	1382		31.28		199.81		199.81	186.0	1851		7.5	53.2
WEEK 3	1.193					0.997		121.0	1191		20.37		205.68		184.03	98.0	980		7.8	55.0
WEEK 4	1.163																			

Signature: _____
 Certification Number: 3989

City of Waverly

MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Date: June, 2016

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS				TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. LBS/DAY					TOTAL SUSPENDED SOLIDS		RAW TEMP. ° F.			
		FLOW MGD	TEMP ° F	ph	VOL. ACID MGL		ALKALIN. MGL	INF. MGL	LBS/DAY	INF. PHOS. LBS/DAY	INF. TOTAL N (as N) MGL	INF. TKN (as N) MGL	INF. TKN (as N) LBS/DAY	INF. MGL	LBS/DAY				
1	Wed.	1.390	97	7.09		3020	0.77		3.99	46.25	30.50	353.57	28.80	333.87		425	5033	7.5	56
2	Thurs.	1.420	97	7.10	428		0.74	3209										7.4	57
3	Fri.	1.580	97	7.10			0.58											7.4	57
4	Sat.	1.390					0.77												
5	Sun.	1.340					0.82												
6	Mon.	1.340	97	7.14	405	2960	0.82											7.4	57
7	Tues.	1.250	97	7.13			0.91											7.5	57
8	Wed.	1.310	97	7.12			0.85	1726	4.19	45.78	24.70	269.86	22.30	243.64	256	2797	7.4	57	
9	Thurs.	1.350	97	7.14			0.81											7.4	57
10	Fri.	3.600	97	7.14	480	2960	-1.44	3993							216	6485	7.3	58	
11	Sat.	4.960					-2.80												
12	Sun.	2.840					-0.68												
13	Mon.	2.010	97	7.13	480	2940	0.15											7.3	59
14	Tues.	2.100	97	7.10			0.06											7.4	59
15	Wed.	2.360	97	7.12			-0.20	2539	3.67	72.23	18.60	366.09	14.80	291.30	274	5393	7.4	59	
16	Thurs.	2.590	97	7.12			-0.43											7.4	59
17	Fri.	2.390	97	7.09	398	3100	-0.23	1535							139	2771	7.3	59	
18	Sat.	2.070					0.09												
19	Sun.	1.840					0.32												
20	Mon.	1.810	96	7.10	398	3040	0.35											7.4	59
21	Tues.	1.990	97	7.09			0.17											7.4	59
22	Wed.	2.290	97	7.11			-0.13	3094	3.68	70.28	25.00	477.47	19.10	364.78	270	5157	7.3	60	
23	Thurs.	1.850	97	7.10			0.31											7.3	60
24	Fri.	1.730	97	7.08	465	3030	0.43	1385							182	2626	7.3	60	
25	Sat.	1.600					0.56												
26	Sun.	1.580					0.58												
27	Mon.	1.520	97	7.09	450	3010	0.84											7.4	60
28	Tues.	1.620	97	7.10			0.54											7.3	60
29	Wed.	1.460	97	7.10			0.70	2167	3.66	44.57	24.60	299.54	19.20	233.79	228	2776	7.6	60	
30	Thurs.	1.550	97	7.09			0.61											7.6	60
31																			

TOTAL	58.130					6.670	1204.0	19649	279.11	1766.53	1467.37	1990.0	33037						
AVERAGE	1.938	97.0	7.1			0.222	150.5	2456	55.82	353.31	293.47	248.8	4130					7.4	58.6
MAX	4.960	97.0	7.1			0.910	271.0	3993	72.23	477.47	364.78	425.0	6485					7.6	60.0
MIN	1.250	96.0	7.1			-2.800	77.0	1385	44.57	269.86	233.79	139.0	2626					7.3	56.0

7 DAY AVERAGE																			
WEEK 1	1.387					0.773	271.0	3209	46.25	353.57	333.87	425.0	5033					7.4	56.8
WEEK 2	2.596					-0.436	145.5	2860	45.78	269.86	243.64	236.0	4641					7.4	57.0
WEEK 3	2.150					0.010	103.0	2037	72.23	366.09	291.30	206.5	4082					7.4	57.0
WEEK 4	1.741					0.419	129.0	2240	70.28	477.47	364.78	226.0	3891					7.3	60.0

Signature: _____
Certification Number: 3989

City of Waverly

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

discharge serial # 001

Date: July, 2015

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS				TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		TOTAL SUSPENDED SOLIDS					RAW TEMP. ° F.							
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L		ALKALIN. MG/L	INF. MG/L	INF. LBS/DA Y	INF. PHOS. LBS/DA Y	INF. TOTAL N (as N) MG/L	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY		INF. LBS/DA Y	RAW ph					
1	Wed.	1.550	95	7.14		308	2820	0.61	143	1694	3.51	45.37	21.60	279.22	14.20	183.56	208	2463	7.6	60	
2	Thurs.	1.420	95	7.14				0.74												7.6	60
3	Fri.	1.320	95	7.13				0.84												7.6	61
4	Sat.	1.200						0.96													
5	Sun.	1.250						0.91													
6	Mon.	1.490	95	7.05		323	2860	0.67												7.5	61
7	Tues.	1.300	96	7.01				0.86												7.5	61
8	Wed.	1.250	96	7.00				0.91	163	1699	4.97	51.81	26.20	273.14	19.20	200.16	267	2783	7.5	61	
9	Thurs.	1.260	95	7.04		278	2730	0.90	153	1608							230	2417	7.5	61	
10	Fri.	1.150	95	7.04				1.01												7.5	62
11	Sat.	1.150						1.01													
12	Sun.	1.220						0.94													
13	Mon.	1.210	96	7.06		300	2790	0.95												7.5	63
14	Tues.	1.190	96	7.05				0.97												7.6	63
15	Wed.	1.140	96	7.05				1.02	237	2253	11.00	104.58	44.00	418.33	43.40	412.63	487	4630	7.6	63	
16	Thurs.	1.220	96	7.03				0.94												7.6	62
17	Fri.	1.120	96	7.04		300	2630	1.04	182	1700							262	2447	7.5	63	
18	Sat.	1.250						0.91													
19	Sun.	0.930						1.23													
20	Mon.	1.190	96	7.04		315	2680	0.97												7.5	63
21	Tues.	1.140	95	7.02				1.02												7.5	63
22	Wed.	1.140	95	7.01				1.02	179	1702	5.15	48.96	31.40	298.54	26.10	248.15	320	3042	7.6	63	
23	Thurs.	1.050	95	7.03				1.11												7.6	63
24	Fri.	1.120	95	7.00		330	2740	1.04	188	1756							272	2541	7.6	63	
25	Sat.	1.290						0.87													
26	Sun.	1.200						0.96													
27	Mon.	1.300	95	7.02		323	2700	0.86												7.5	64
28	Tues.	1.940	95	7.02				0.82												7.5	64
29	Wed.	1.430	95	7.00				0.73	221	2636	6.71	80.02	27.00	322.01	22.20	264.76	339	4043	7.6	64	
30	Thurs.	1.790	95	7.01				0.37												7.6	64
31	Fri.	1.670	95	6.99		293	2620	0.49	166	2312							260	3621	7.6	64	

TOTAL	39,480	27,480	1632.0	17360	330.76	1591.24	1309.26	2645.0	27989	7.6 <th>62.4</th>	62.4
AVERAGE	1.274	0.886	181.3	1929	66.15	318.25	261.85	293.9	3110	7.6	62.4
MAX	1.790	1.230	237.0	2636	104.58	418.33	412.63	487.0	4630	7.6	64.0
MIN	0.930	0.370	143.0	1608	45.37	273.14	183.56	208.0	2417	7.5	60.0

7 DAY AVERAGE	1.361	0.799	143.0	1694	45.37	279.22	183.56	208.0	2463	7.6	60.6
WEEK 1	1.204	0.956	158.0	1654	51.81	273.14	200.16	248.5	2600	7.5	60.8
WEEK 2	1.141	1.019	209.5	1977	104.58	418.33	412.63	374.5	3539	7.5	61.0
WEEK 3	1.234	0.926	183.5	1729	48.96	298.54	248.15	296.0	2792	7.6	63.4

Signature: _____
Certification Number: 3989

City of Waverly

MONTHLY MONITORING REPORT

Date: August, 2015

DISCHARGE SERIAL # 001 - # 002

Facility Number_0990001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS				BOD 5 DAY 20 °C		TOTAL SUSPENDED SOLIDS					RAW ph	RAW TEMP. ° F.				
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L	TRICKLIN G FILTER RECIRC. FLOW MGD	INF. MG/L	INF. LBS/DA Y	INF. PHOS. LBS/DA Y	INF. TOTAL N (as N) MG/L	INF. TKN (as N) LBS/DAY			INF. MG/L	INF. LBS/DA Y		
1	Sat.	1.350					0.81											
2	Sun.	1.370					0.79											
3	Mon.	1.330	95	7.00	308	2680	0.83									7.6	64	
4	Tues.	1.190	95	7.00			0.97									7.5	64	
5	Wed.	1.090	95	6.98			1.07	2136	4.78	43.45	25.30	229.99	19.40	176.36	428	3891	7.6	64
6	Thurs.	1.110	95	6.99			1.05									7.6	64	
7	Fri.	1.030	95	7.02	180	2600	1.13	1048							176	1512	7.6	65
8	Sat.	1.200					0.96											
9	Sun.	0.860					1.30											
10	Mon.	0.990	95	6.96	285	2690	1.17									7.6	65	
11	Tues.	0.970	95	6.95			1.19									7.6	65	
12	Wed.	0.980	95	6.95			1.18	1398	5.95	48.63	29.90	244.38	24.10	196.97	295	2411	7.6	65
13	Thurs.	0.930	95	6.94			1.23									7.6	65	
14	Fri.	1.080	96	6.94	300	2400	1.08	1135							200	1801	7.6	65
15	Sat.	0.920					1.24											
16	Sun.	0.920					1.24											
17	Mon.	1.020	95	6.97	293	2420	1.14									7.6	66	
18	Tues.	1.120	95	7.00			1.04									7.5	66	
19	Wed.	1.010	95	6.98			1.15	1752	6.18	52.06	24.20	203.85	20.00	168.47	331	2788	7.5	66
20	Thurs.	1.040	95	6.98			1.12									7.5	66	
21	Fri.	0.990	97	7.01	180	2560	1.17	1106							218	1800	7.6	66
22	Sat.	0.990					1.17											
23	Sun.	0.930					1.23											
24	Mon.	0.880	97	7.00	285	2610	1.28									7.6	66	
25	Tues.	0.920	97	7.00			1.24									7.6	66	
26	Wed.	0.980	97	6.99			1.18	1063	5.98	48.88	33.20	271.35	28.00	228.85	179	1463	7.6	66
27	Thurs.	1.050	97	6.99			1.11									7.6	66	
28	Fri.	1.970	97	7.01	300	2300	0.19	3023							278	4567	7.6	66
29	Sat.	1.220					0.94											
30	Sun.	1.050					1.11											
31	Mon.	1.120	97	7.00	293	2340	1.04									7.6	66	

TOTAL AVERAGE	MAX	MIN	INF. MG/L	INF. LBS/DA Y	INF. PHOS. LBS/DA Y	INF. TOTAL N (as N) MG/L	INF. TKN (as N) LBS/DAY	INF. MG/L	INF. LBS/DA Y	RAW ph	RAW TEMP. ° F.
33.610	1.084	0.860	1310.0	12661	193.02	949.57	770.65	2105.0	20234	7.6	65.3
1.084	1.970	0.860	163.8	1583	48.26	237.39	192.66	263.1	2529	7.6	65.3
0.860	1.084	0.860	235.0	3023	52.06	271.35	228.85	428.0	4567	7.6	66.0
6.9	7.0	6.9	122.0	1048	43.45	203.85	168.47	176.0	1463	7.5	64.0

7 DAY AVERAGE	WEEK 1	WEEK 2	WEEK 3	WEEK 4
1.210	1.210	1.001	1.003	1.103
95.7	95.7	97.0	95.0	95.0
7.0	7.0	7.0	6.9	6.9
178.5	178.5	148.5	171.0	157.0
1592	1592	1266	1429	2043
43.45	43.45	48.63	52.06	48.88
229.99	229.99	244.38	203.85	271.35
176.36	176.36	196.97	168.47	228.85
302.0	302.0	247.5	274.5	301.5
2701	2701	2106	2294	3015
7.6	7.6	7.5	7.6	7.6
64.2	64.2	64.2	64.2	66.0

Signature: _____
 Certification Number: 3889

City of Waverly

Date: September, 2015

discharge serial # 001

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS			TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		TOTAL SUSPENDED SOLIDS					RAW TEMP. ° F.				
		FLOW MGD	TEMP °F	ph		VOL. ACID MG/L	ALKALIN. MG/L	INF. MG/L	INF. LBS/DA Y	INF. PHOS. LBS/DA Y	INF. PHOS. MG/L	INF. TOTAL N (as N) LBS/DA Y		INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DA Y	INF. LBS/DA Y	RAW ph
1	Tues.	1.070	97	7.02			1.09	153	4.34	38.37	25.40	224.55	20.50	181.23	206	1821	7.6
2	Wed.	1.060	97	7.00			1.10	1353									7.5
3	Thurs.	1.100	98	7.00			1.06										7.5
4	Fri.	0.980	97	7.04	278	2410	1.18	1005							171	1398	7.5
5	Sat.	0.890					1.27										
6	Sun.	0.900					1.26										
7	Mon.	0.980	97	6.94	278	2390	1.18										7.5
8	Tues.	1.140	97	6.95			1.02										7.5
9	Wed.	1.090	97	6.96			1.07	265	6.27	57.00	38.50	349.99	35.90	326.35	331	3009	7.5
10	Thurs.	1.270	97	6.95			0.89										7.5
11	Fri.	1.130	97	6.94	278	2240	1.03	154							248	2337	7.5
12	Sat.	1.010					1.15										
13	Sun.	1.070					1.09										
14	Mon.	1.120	97	6.98	285	2280	1.04										7.5
15	Tues.	0.960	97	6.96			1.20										7.5
16	Wed.	1.030	97	6.96			1.13	148	5.01	43.04	25.80	221.63	23.10	198.43	196	1684	7.6
17	Thurs.	1.120	97	7.00			1.04										7.5
18	Fri.	0.980	97	6.99	308	2150	1.18	161							241	1970	7.6
19	Sat.	0.840					1.32										
20	Sun.	0.950					1.21										
21	Mon.	0.960	97	6.94	293	2170	1.20										7.6
22	Tues.	0.900	97	6.95			1.26										7.6
23	Wed.	0.830	97	6.96			1.33	79	7.23	50.05	39.70	274.81	38.00	263.04	84	581	7.6
24	Thurs.	0.910	97	6.95			1.25										7.6
25	Fri.	0.810	97	6.94	170	2010	1.35	125							220	1486	7.6
26	Sat.	0.830					1.33										
27	Sun.	0.870					1.29										
28	Mon.	1.210	96	6.81	180	2090	0.95										7.0
29	Tues.	1.240	96	7.00			0.92	86	7	64.46	27.30	257.28	25.60	241.26	150	1414	7.6
30	Wed.	1.130	96	6.90			1.03										8.0
31																	62

TOTAL	30.380				34.420		1293.2	11000		252.91		1328.25		1210.32	1847.0	15700	
AVERAGE	1.013	96.9	7.0		1.147		143.7	1222		50.58		265.65		242.06	205.2	1744	7.5
MAX	1.270	98.0	7.0		1.350		265.0	2409		64.46		349.99		326.35	331.0	3009	8.0
MIN	0.810	96.0	6.8		0.890		78.7	545		38.37		221.63		181.23	84.0	581	7.0

7 DAY AVERAGE																	
WEEK 1	0.997				1.163		138.0	1179		38.37		224.55		181.23	188.5	1609	7.5
WEEK 2	1.119				1.041		209.5	1980		57.00		349.99		326.35	289.5	2673	7.5
WEEK 3	0.977				1.183		154.5	1294		43.04		221.63		198.43	218.5	1827	7.6
WEEK 4	0.909				1.251		101.9	695		50.05		274.81		263.04	152.0	1034	7.5

Signature: _____
Certification Number: 3989

City of Waverly
MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

Date: October, 2015

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS				BOD 5 DAY 20 °C		INF.					TOTAL SUSPENDED SOLIDS		RAW pH	RAW TEMP. ° F.				
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L	TRICKLING FILTER RECIRC. FLOW MGD	INF. MG/L	INF. LBS/DA Y	INF. PHOS. MG/L	INF. PHOS. LBS/DA Y	INF. TOTAL N (as N) MG/L	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY			INF. MG/L	INF. LBS/DA Y		
1	Thurs.	1.120	96	6.90		2270	1.04										124	1003	7.8	63
2	Fri.	0.970	96	6.90	293		1.19	32	261										8.0	60
3	Sat.	0.930					1.23													
4	Sun.	0.960					1.20													
5	Mon.	0.990	95	7.01	278	2390	1.17												7.7	64
6	Tues.	1.060	96	7.04			1.10												7.7	62
7	Wed.	1.020	96	7.09			1.14	31	264	6.78	57.68	56.80	483.19	15.50	131.86	66	561	7.9	64	
8	Thurs.	1.000	96	7.11			1.16												7.9	63
9	Fri.	0.980	96	7.07	300	2410	1.18	48	392							64	523	7.8	63	
10	Sat.	0.950					1.21													
11	Sun.	0.980					1.18													
12	Mon.	1.000	97	7.03	315	2430	1.16												7.7	64
13	Tues.	0.900	97	7.04			1.26												7.7	64
14	Wed.	0.950	97	7.05			1.21	224	1775	4.83	38.27	33.70	267.01	24.50	194.11	243	1925	7.6	64	
15	Thurs.	0.920	97	7.06			1.24												7.6	63
16	Fri.	0.890	97	7.07	278	2500	1.27	193	1433							274	2034	7.6	64	
17	Sat.	0.860					1.30													
18	Sun.	0.930					1.23													
19	Mon.	0.970	97	7.06	293	2480	1.19												7.5	63
20	Tues.	0.970	97	7.06			1.19												7.6	63
21	Wed.	0.930	97	7.06			1.23	178	1381	5.57	43.20	33.90	262.94	28.20	218.72	244	1893	7.5	63	
22	Thurs.	0.950	97	7.07			1.21												7.5	63
23	Fri.	0.990	97	7.04	278	2360	1.17	160	1321							219	1808	7.6	63	
24	Sat.	0.850					1.31													
25	Sun.	0.940					1.22													
26	Mon.	0.920	97	7.06	300	2420	1.24												7.6	63
27	Tues.	1.100	97	7.03			1.06												7.5	63
28	Wed.	1.040	97	7.05			1.12	209	1813	5.67	49.18	41.50	359.95	35.60	308.78	283	2455	7.5	63	
29	Thurs.	0.950	97	7.05			1.21												7.5	63
30	Fri.	1.010	97	7.00	165	2300	1.15	165	1390							242	2038	7.5	63	
31	Sat.	0.910					1.25													

TOTAL AVERAGE MAX MIN	TRICKLING FILTER RECIRC. FLOW MGD		BOD 5 DAY 20 °C		INF.					TOTAL SUSPENDED SOLIDS		RAW pH	RAW TEMP. ° F.			
	MAX	MIN	INF. MG/L	INF. LBS/DA Y	INF. PHOS. MG/L	INF. PHOS. LBS/DA Y	INF. TOTAL N (as N) MG/L	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	INF. MG/L	INF. LBS/DA Y					
29.940	0.966	1.120	0.850	95.0	6.9	7.1	37.020	1240.3	10029	188.33	1373.08	853.47	1759.0	14241	7.9	62.5
96.0	96.6	97.0	97.0	7.0	7.1	1.194	137.8	1114	47.08	343.27	213.37	195.4	1582	1582	7.7	63.1
1.120	1.120	1.120	1.120	6.9	7.1	1.310	224.0	1813	57.68	483.19	308.78	283.0	2455	2455	8.0	64.0
0.850	0.850	0.850	0.850	6.9	6.9	1.040	31.0	261	38.27	262.94	131.86	64.0	523	523	7.5	60.0

7 DAY AVERAGE	WEEK 1	WEEK 2	WEEK 3	WEEK 4
1.007	1.007	0.966	0.924	0.970
96.6	96.6	97.0	97.0	97.0
7.0	7.0	7.1	7.1	7.0
37.020	37.020	1.153	1.194	1.190
1240.3	1240.3	136.0	185.5	184.5
10029	10029	1084	1407	1567
188.33	188.33	57.68	43.20	49.18
1373.08	1373.08	267.01	262.94	359.95
853.47	853.47	194.11	308.78	251.0
1759.0	1759.0	153.5	1963	2131
14241	14241	1224	1963	2131
7.9	7.8	7.7	7.6	7.5
62.5	62.5	62.5	63.1	63.0

Signature: _____
Certification Number: 3989

City of Waverly

MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

Date: November, 2015

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS				TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C			TOTAL SUSPENDED SOLIDS					RAW pH	RAW TEMP. ° F.				
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L		ALKALIN. MG/L	INF. MG/L	INF. LBS/DA Y	INF. TOTAL N (as N) MG/L	INF. TOTAL N (as N) LBS/DA Y	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DA Y	INF. MG/L			INF. LBS/DA Y			
1	Sun.	0.950																	7.5	63
2	Mon.	0.930	97	6.98	275	2340	1.21												7.5	63
3	Tues.	0.990	97	7.00			1.23												7.5	63
4	Wed.	1.000	97	6.99			1.16		1643										7.5	63
5	Thurs.	1.010	97	6.98			1.15		197		6.48	54.04	276.05	28.60	238.52				7.5	63
6	Fri.	0.950	97	6.97	293	2250	1.21		181										7.5	62
7	Sat.	0.840					1.32													
8	Sun.	0.890					1.27													
9	Mon.	0.880	97	6.97	278	2260	1.28												7.5	62
10	Tues.	0.890	97	6.96			1.27												7.5	61
11	Wed.	1.020	97	6.98			1.14		1940		5.58	47.47	48.60	44.10	375.15				7.5	61
12	Thurs.	0.960	97	6.98			1.20												7.5	61
13	Fri.	0.810	97	6.94	278	2300	1.35												7.5	61
14	Sat.	0.910					1.25		1283											
15	Sun.	1.040					1.12													
16	Mon.	1.010	97	6.93	285	2980	1.15												7.5	59
17	Tues.	1.160	97	6.94			1.00												7.5	59
18	Wed.	1.050	97	6.96			1.11		161		4.63	40.54	31.30	274.09	26.30	230.31			7.5	59
19	Thurs.	1.030	97	6.92			1.13												7.4	59
20	Fri.	0.940	97	6.92	300	2330	1.22		164										7.4	58
21	Sat.	1.000					1.16													
22	Sun.	1.000					1.16													
23	Mon.	1.060	97	6.96	293	2280	1.10		183										7.5	57
24	Tues.	1.080	97	6.94			1.08												7.5	57
25	Wed.	1.160	97	6.98	308	2360	1.00		169		4.39	42.47	29.30	283.46	21.50	208.00			7.3	57
26	Thurs.	1.410	97	6.98			0.75												7.4	57
27	Fri.	1.220	97	6.96			0.94												7.4	57
28	Sat.	1.160					1.00													
29	Sun.	1.140					1.02													
30	Mon.	1.390	97	6.96	285	2310	0.77												7.4	57

TOTAL AVERAGE	30.880					33.920	1452.0	12248	184.53	1247.04	1051.98	2126.0	17781
MAX	1.029	97.0	7.0			1.131	181.5	1531	46.13	311.76	263.00	265.8	2223
MIN	1.410	97.0	7.0			1.350	228.0	1940	54.04	413.43	375.15	311.0	2757
	0.810	97.0	6.9			0.750	161.0	1283	40.54	274.09	208.00	230.0	1615

7 DAY AVERAGE	0.953					1.207	189.0	1539	54.04	276.05	238.52	285.5	2325
WEEK 1	0.909					1.251	198.5	1611	47.47	413.43	375.15	275.0	2130
WEEK 2	1.033					1.127	162.5	1348	40.54	274.09	230.31	240.0	1996
WEEK 3	1.156					1.004	176.0	1626	42.47	283.46	208.00	262.5	2439

Signature: _____
Certification Number: 3989

City of Waverly

MONTHLY MONITORING REPORT

DISCHARGE SERIAL # 001 - # 002

Date: December, 2015

Facility Number: 09900001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS			TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. LBS/DA Y	INF. PHOS. MG/L	INF. TOTAL N (as N) LBS/DA Y	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	TOTAL SUSPENDED SOLIDS		RAW pH	RAW TEMP. ° F.
		TEMP °F	FLOW MGD	ph		MG/L	MG/L						MG/L	MG/L		
1	Tues.	1.290	97	6.98	0.87	152	1547	5.07	51.59	26.30	267.60	188.23	232	2361	7.4	57
2	Wed.	1.220	97	6.97	0.94										7.6	57
3	Thurs.	1.250	97	6.99	0.91										7.6	57
4	Fri.	1.110	97	6.99	1.05	131	1213						204	1889	7.6	57
5	Sat.	1.080			1.08											
6	Sun.	1.020			1.14											
7	Mon.	1.030	97	7.00	1.13										7.6	57
8	Tues.	1.070	97	7.00	1.09										7.5	57
9	Wed.	1.040	97	6.98	1.12	90	781	4.98	43.19	33.60	291.43	224.65	152	1318	7.5	57
10	Thurs.	1.030	97	7.01	1.13										7.5	57
11	Fri.	1.020	97	7.04	1.14	110	936						167	1421	7.5	57
12	Sat.	1.149			1.01											
13	Sun.	2.890			-0.73											
14	Mon.	2.190	97	6.95	0.38										7.4	55
15	Tues.	1.780	97	6.93	0.38										7.5	55
16	Wed.	1.980	97	6.94	0.18	100	1651	3.02	49.87	256.00	4227.38	374.85	183	3022	7.5	56
17	Thurs.	1.850	97	6.94	0.31	87	1204						171	2367	7.5	55
18	Fri.	1.860	97	6.93	0.50											
19	Sat.	1.520			0.64											
20	Sun.	1.530			0.63											
21	Mon.	1.730	97	6.94	0.43	145	2092						183	2640	7.5	54
22	Tues.	1.520	97	6.93	0.64										7.5	54
23	Wed.	1.550	97	6.94	0.61	110	1422	4.40	56.88	61.50	795.01	681.25	315	4072	7.4	54
24	Thurs.	1.440	97	6.94	0.72										7.4	54
25	Fri.	1.240	97	6.95	0.92										7.4	54
26	Sat.	1.330			0.83											
27	Sun.	1.390			0.77											
28	Mon.	1.440	97	6.93	0.72										7.4	54
29	Tues.	1.030	97	6.94	1.13										7.4	54
30	Wed.	1.220	97	6.94	0.94	99	1007	2.51	25.54	27.90	283.88	16.70	204	2076	7.5	54
31	Thurs.	1.200	97	6.93	0.96	121	1211						191	1912	7.5	53

TOTAL	43.799	23.161	1145.0	13064	227.07	5865.30	1638.90	2002.0	23077
AVERAGE	1.413	0.747	114.5	1306	45.41	1173.06	327.78	200.2	2308
MAX	2.890	1.140	152.0	2092	56.88	4227.38	681.25	315.0	4072
MIN	1.020	-0.730	87.0	781	25.54	267.60	169.92	152.0	1318

7 DAY AVERAGE	1.143	1.017	141.5	1380	51.59	267.60	188.23	218.0	2125
WEEK 1	1.484	0.676	100.0	858	43.19	291.43	224.65	159.5	1370
WEEK 2	1.721	0.439	110.7	1649	49.87	4227.38	374.85	179.0	2677
WEEK 3	1.416	0.744	110.0	1422	56.88	795.01	681.25	315.0	4072

Signature: _____
 Certification Number: 3989

City of Waverly
Department of Public Works
FY 2015-16

STORM AND SANITARY SEWER LINE MAINTENANCE

The Storm/Sanitary Sewer Maintenance Division was established in FY 1990-91. Its function is to maintain the sewer systems and assist the Street, WPC, and Water Divisions as needed with major projects. Its purpose is two-fold: to establish an effective annual maintenance program to control long-term upkeep costs and to establish a more efficient operation of our sewer systems. This will utilize the budgeted money more efficiently, reduce waste water treatment costs, and upgrade instead of maintain our storm/sanitary sewers.

The following is a brief overview of some projects during FY 2015-16. This is not a total summary, but does give an idea of the versatility of this division and the expertise required. Several hundred feet of sanitary sewers were televised. Several problem areas are being scheduled for repair or replacement as time and funds become available.

FUTURE PROJECTS

1. Complete an inventory and inspection report of all sanitary and storm sewer structures and place into a computerized Storm/Sanitary Sewer Maintenance program.
2. Continue upgrade of existing sanitary manholes to decrease infiltration problems.
3. Continue work on storm sewer intakes and catch basins and replace old brick structures with poured concrete structures.
4. Continue televising of sewer lines to locate problem areas.
5. Continue cleaning and maintaining storm and sanitary sewer lines.

AREA OF CONCERN

1. Infiltration and inflow problems must continue to be addressed with some major financing.
2. Tree roots in sanitary sewer lines.
3. Undersized storm water collection system.

Storm and Sanitary Sewer Line Maintenance

Fiscal Year 2015-16

	<u>2015-16*</u>	<u>2016-17</u>	<u>2017-18</u>	<u>2018-19</u>	<u>2019-20</u>
<u>Sanitary Sewer Maintenance</u>					
Lines Flushed	25,182				Feet
Manholes Cleaned					Each
<u>Storm Sewer Maintenance</u>					
Lines Flushed					Feet
Intakes & MH Cleaned					Each
<u>Televising Lines</u>					
Sanitary Sewer	2,405				Feet
Storm Sewer					Feet
<u>Jetting Sewer Mains</u>					
Water Used	26,500				Gallons
<u>Lines Repaired</u>					
Sanitary Sewer					Each
Storm Sewer					Each
<u>Intakes Repaired</u>					
					Each
<u>Manholes Repaired</u>					
					Each
<u>Sewer Call-Outs</u>					
<i>During & after hours</i>					
					Each
<u>IA One Call Locates</u>					
					Each
<u>Other Division Work</u>					
Streets - Snow Plowing					Hours
Water - Leak Repairs					Hours
WPC - Lift Stations					Hours
Leisure Serv. - Cem. Graves	8				Each
Leisure Serv. - Golf Course					Hours
Engineering - Inspections					Hours
<u>Miscellaneous:</u>					
Sewer spill at golf course					
Bio Solids spill at WPC					
Dry Run Creek Improvements Project					

**For 2015-16 the Line Maintenance crew did not keep good records; hence the many blanks.*

City of Waverly
Department of Public Works
FY 2015-16

SOLID WASTE

Recycling

Voluntary Drop-Off Program
Curbside Collection Program

Refuse Collection

Residential
Commercial
Yard Waste – Drop-Off Site

Refuse Container (Dumpster)

Repair

Special Collections

Waverly Horse Sale – Fall & Spring
Chamber – Agriculture Appreciation Day
Bremer County Fair
Special Collection Weeks – Spring
Other Special Events

The Solid Waste Division collects refuse once a week from residential customers and up to five days per week from commercial. Garbage to be pickup in the City of Waverly needs to be in a City-owned garbage container or dumpster. Residential customers are able to rent a 35- or 65-gallon City-owned garbage container. Commercial customers can use either a City dumpster or a city-owned garbage container. Curbside recycling runs every other week. The average stops per day is 104. It is a one-man operation, which one refuse collector runs each month. Consideration needs to be given to weekly curbside recycling.

The Recycling Center is open Monday through Friday from 7:00 a.m. to 5:30 p.m. and from 8:00 a.m. to 4:00 p.m. on Saturdays. Local civil volunteer groups, when available, continue to work during Recycling Saturdays as a community service.

Two part-time employees operate the Recycling Center each day, each working half a day, including each Saturday. There is a total of four part-time employees who work in the center. The average number of cars through the center each day is 119.

Yard Waste Site

Along with the Recycling Center, the City also operates a Yard Waste Site from April through November. Four part-time employees also operate the Yard Waste Site. Leaves, grass clippings, garden waste, trees, and branches are accepted at no charge. Appliances, furniture, tires, and carpeting are also collected here for a fee while it is open.

City of Waverly

Recycling Statistics

FY 2015-16

Recycling Center Car Count

Total: 36,212 Daily Average: 119

Recycling Saturday Car Count

Total: 8,479 Monthly Average: 707

Curbside Recycling Stops

Total: 32,108 Monthly Average: 2,675

Total Weight of the Recycled Products from the Recycling Center and Curbside Recycling Route: 1,138 tons

Total Weight of the Recycled Products from the Curbside Recycling Route:
574,281 pounds (287 tons)

Revenue from the recycled products plus used oil: \$11,589

Estimated cost for recycling program:

1. \$55,000 in wages for part-time employees at the Recycling Center and the Yard Waste Site, full-time employees doing the curbside route and hauling product to Republic Services (north of Cedar Falls)
2. \$15,000 to \$20,000 in utilities, building maintenance, equipment, fuel, and contracted work.

Other items or material recycled by the City of Waverly:

- 5-10 tons of steel, old sewer castings, signs, poles, plow blades, and miscellaneous pieces
- 95 tires
- 399 appliances
- 3,600 gallons of oil
- 338 Electronics (computers, televisions, monitors, and printers)

Yard Waste Site car count:

(July - Nov 2015 and March – June 2016): 23,400

Monthly average: 2,925

Busiest months were October and November 2015

831 tons of yard waste were turned into compost.

2,789 tons of brush and trees were ground up to make wood mulch.

City of Waverly

Solid Waste Employee Hours

FY 2015-16

<u>Refuse Collections</u>	<u>Hours</u>
Residential	<u>1,693</u>
Commercial	<u>2,178</u>
Black Hawk Co. Landfill	<u>573</u>
Temporary Dumpsters	<u>297</u>
Corrugated Collection	<u>331</u>
Curb-Side Recycling Pick-up	<u>696</u>
Recycle Center Duties	<u>209</u>
Building/Vehicle/Dumpster Maintenance	<u>406</u>
Misc Activity (training, etc)	<u>228</u>
<u>Other Divisions</u>	
Street Division	
Snow Plowing & Removal	<u>145</u>
Other (Patching, Mowing, Tree Trimming, Etc)	<u>197</u>
Water Division Projects	<u>0</u>
Sewer Maintenance Projects	<u>0</u>

City of Waverly
Car Count
Recycling Center and Yard Waste Site
 FY 2015-16

Recycling Center

Month	# of Days	Mornings			Afternoons		Monthly Total	Daily Average
		7a-12:30p	Saturdays	% of Total	12:30-5:30p	% of Total		
July '15	25	1,064	466	52%	1,390	48%	2,920	117
Aug '15	26	997	794	60%	1,176	40%	2,967	114
Sep '15	25	977	701	58%	1,203	42%	2,881	115
Oct '15	27	1,096	756	61%	1,188	39%	3,040	113
Nov '15	23	1,089	680	60%	1,178	40%	2,947	128
Dec '15	26	1,323	715	61%	1,330	39%	3,368	130
Jan '16	25	989	730	61%	1,100	39%	2,819	113
Feb '16	25	806	703	59%	1,066	41%	2,575	103
Mar '16	26	975	570	54%	1,304	46%	2,849	110
Apr '16	26	1,140	828	64%	1,125	36%	3,093	119
May '16	25	1,139	852	61%	1,290	39%	3,281	131
Jun '16	26	1,327	684	58%	1,461	42%	3,472	134
Total							36,212	

Recycling Center - Car Count History

Fiscal Year	2011-12	2012-13	2013-14	2014-15	2015-16
Weekdays	22,662	21,044	25,449	23,953	27,733
Saturdays	6,123	7,171	8,110	7,968	8,479
Totals	28,785	28,215	33,559	31,921	36,212

Yard Waste Site - Car Count History

Fiscal Year	2011-12	2012-13	2013-14	2014-15	2015-16
Totals	20,524	18,362	21,663	22,521	23,400

City of Waverly
Curbside Recycling
Number of Residential/Commercial Stops
FY 2015-16

<u>Week Beginning</u>	<u>Mon</u>	<u>Tues</u>	<u>Wed</u>	<u>Thurs</u>	<u>Fri</u>	<u>Weekly Totals</u>	<u>Total</u>
07/06/15	<u>264</u>	<u>198</u>	<u>274</u>	<u>299</u>	<u>218</u>	<u>1,253</u>	
07/20/15	<u>275</u>	<u>200</u>	<u>276</u>	<u>285</u>	<u>211</u>	<u>1,247</u>	<u>2,500</u>
08/03/15	<u>220</u>	<u>225</u>	<u>215</u>	<u>285</u>	<u>196</u>	<u>1,141</u>	
08/17/15	<u>156</u>	<u>156</u>	<u>174</u>	<u>144</u>	<u>125</u>	<u>755</u>	<u>1,896</u>
08/31/15	<u>189</u>	<u>202</u>	<u>235</u>	<u>285</u>	<u>215</u>	<u>1,126</u>	
09/14/15	<u>267</u>	<u>199</u>	<u>282</u>	<u>252</u>	<u>223</u>	<u>1,223</u>	
09/28/15	<u>258</u>	<u>226</u>	<u>279</u>	<u>289</u>	<u>240</u>	<u>1,292</u>	<u>3,641</u>
10/12/15	<u>307</u>	<u>265</u>	<u>295</u>	<u>305</u>	<u>238</u>	<u>1,410</u>	
10/26/15	<u>291</u>	<u>266</u>	<u>286</u>	<u>293</u>	<u>268</u>	<u>1,404</u>	<u>2,814</u>
11/10/15	<u>247</u>	<u>240</u>	<u>257</u>	<u>271</u>	<u>215</u>	<u>1,230</u>	
11/23/15	<u>257</u>	<u>275</u>	<u>267</u>	<u>281</u>	<u>225</u>	<u>1,305</u>	<u>2,535</u>
12/07/15	<u>295</u>	<u>234</u>	<u>278</u>	<u>308</u>	<u>219</u>	<u>1,334</u>	
12/21/15	<u>283</u>	<u>230</u>	<u>263</u>	<u>279</u>	<u>210</u>	<u>1,265</u>	<u>2,599</u>
01/04/16	<u>194</u>	<u>177</u>	<u>252</u>	<u>232</u>	<u>178</u>	<u>1,033</u>	
01/18/16	<u>224</u>	<u>215</u>	<u>258</u>	<u>266</u>	<u>210</u>	<u>1,173</u>	<u>2,206</u>
02/09/16	<u>288</u>	<u>121</u>	<u>192</u>	<u>197</u>	<u>215</u>	<u>1,013</u>	
02/16/16	<u>262</u>	<u>204</u>	<u>242</u>	<u>271</u>	<u>180</u>	<u>1,159</u>	<u>2,172</u>
03/01/16	<u>252</u>	<u>228</u>	<u>261</u>	<u>306</u>	<u>242</u>	<u>1,289</u>	
03/15/16	<u>296</u>	<u>261</u>	<u>255</u>	<u>335</u>	<u>246</u>	<u>1,393</u>	
03/28/16	<u>289</u>	<u>242</u>	<u>279</u>	<u>271</u>	<u>210</u>	<u>1,291</u>	<u>3,973</u>
04/11/16	<u>227</u>	<u>226</u>	<u>263</u>	<u>334</u>	<u>245</u>	<u>1,295</u>	
04/26/16	<u>251</u>	<u>228</u>	<u>254</u>	<u>298</u>	<u>220</u>	<u>1,251</u>	<u>2,546</u>
05/09/16	<u>257</u>	<u>274</u>	<u>262</u>	<u>292</u>	<u>227</u>	<u>1,312</u>	
05/23/16	<u>247</u>	<u>308</u>	<u>271</u>	<u>257</u>	<u>205</u>	<u>1,288</u>	<u>2,600</u>
06/06/16	<u>288</u>	<u>253</u>	<u>255</u>	<u>271</u>	<u>245</u>	<u>1,312</u>	
06/20/16	<u>247</u>	<u>300</u>	<u>278</u>	<u>279</u>	<u>210</u>	<u>1,314</u>	<u>2,626</u>
Total for the FY 2015-16							<u>32,108</u>

City of Waverly

Recycling Quantities

FY 2015-16

Sorted Recycling Collected at Recycling Center

		July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	TOTAL
Paper, Bond	lbs.	3,288	5,039	4,762	24,150	2,580	10,000	3,780	4,300	5,460	5,580	-	4,900	73,839
Slick Paper / Magazines	lbs.	9,782	6,949	8,692	20,502	6,740	13,480	6,040	4,680	8,060	5,720	-	6,720	97,365
Newsprint	lbs.	16,540	12,680	6,246	25,441	12,900	15,340	19,440	11,320	11,040	5,860	17,820	10,320	164,947
Corrugation/Chipboard	lbs.	70,640	69,400	67,920	137,110	69,240	85,120	67,400	62,400	78,260	77,540	69,300	100,800	955,130
#3, 4, 5, 6, 7 Plastics	lbs.	15,156	5,623	11,141	12,836	7,760	7,980	6,480	5,060	3,480	-	-	-	75,516
Steel / Alum	lbs.	3,620	1,418	1,608	4,234	1,320	2,480	3,500	1,440	2,800	1,340	1,220	2,540	27,520
Clear Glass	lbs.	4,140	4,080	4,580	9,800	4,340	4,860	9,000	-	9,240	4,480	4,800	4,560	63,880
Totals - Sorted Recycling		123,166	105,189	104,949	234,073	104,880	139,260	115,640	89,200	118,340	100,520	93,140	129,840	1,458,197
													Total Tons	729

Commingled Recycling Picked up Curbside

		July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	TOTAL
Totals - Commingled Recycling	lbs.	71,690	74,680	81,780	71,420	81,120	79,060	58,180	34,840	67,240	78,520	61,060	58,480	818,070
<i>Aluminum, Cardboard, Slick Paper, Newspapers, Bond Paper, Plastics & Metal Cans</i>													Total Tons	409

TOTAL RECYCLING

		July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	TOTAL
TOTALS - Sorted & Commingled Recycling	lbs.	194,856	179,869	186,729	305,493	186,000	218,320	173,820	124,040	185,580	179,040	154,200	188,320	2,276,267
													Total Tons	1,138

Motor Oil Collected at Recycling Center

		July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	TOTAL
Motor Oil	gal.	750	875	300	125	175	150	50	50	100	275	600	150	3,600

City of Waverly

Solid Waste and Recycling Revenues

FY 2015-16

Date	Solid Waste				Recyclables Collected at Recycling Center					TOTAL SOLID WASTE & RECYCLABLE REVENUE
	Utility Billing	Sticker Sales	Temp. Dumpsters & Misc.	Total Solid Waste Revenue	Paper Products	Steel & Aluminum	Plastic	Used Oil	Total Recyclable Revenue	
Jul-15	101,236.86	3,946.00	413.60	105,596.46	449.44	18.74	173.25	87.50	728.93	106,325.39
Aug-15	99,607.97	10.00	0.00	99,617.97	543.81	44.88	59.25	87.50	735.44	100,353.41
Sep-15	103,416.50	1,001.00	120.00	104,537.50	485.31	19.35	65.51	26.25	596.42	105,133.92
Oct-15	105,954.78	1,072.50	680.90	107,708.18	1,849.25	45.16	48.75	105.00	2,048.16	109,756.34
Nov-15	105,943.29	975.00	123.45	107,041.74	1,245.68	0.00	0.00	43.75	1,289.43	108,331.17
Dec-15	103,972.92	0.00	40.00	104,012.92	579.48	30.84	0.00	43.75	654.07	104,666.99
Jan-16	105,538.92	1,949.50	1,594.70	109,083.12	114.66	72.33	0.00	0.00	186.99	109,270.11
Feb-16	104,400.88	2,945.00	161.80	107,507.68	517.20	0.00	5.63	0.00	522.83	108,030.51
Mar-16	103,489.18	4,905.00	330.63	108,724.81	635.85	0.00	13.05	0.00	648.90	109,373.71
Apr-16	104,834.54	0.00	40.00	104,874.54	859.28	0.00	0.00	0.00	859.28	105,733.82
May-16	105,696.94	1,960.00	746.00	108,402.94	1,337.62	0.00	0.00	0.00	1,337.62	109,740.56
Jun-16	108,378.74	1,131.25	574.09	110,084.08	1,970.80	10.20	0.00	0.00	1,981.00	112,065.08
TOTALS	1,252,471.52	19,895.25	4,825.17	\$ 1,277,191.94	10,588.38	241.50	365.44	393.75	11,589.07	\$ 1,288,781.01
Received from Black Hawk County Landfill to assist with funding of recycling & waste reduction										\$ 3,414.54
TOTAL REVENUES										\$ 1,292,195.55

In March 2014 the City of Waverly began to accept commingled recyclables from the curb. The City entered into an agreement with Rite Environment to accept our commingled recyclables at \$17.50/ton. (Landfill charge is \$33.25/ton.) Rite Environmental's rate increased to \$112.50/ton in early 2016. The City then entered into an agreement with Cedar Valley Recycling on March 21, 2016, at \$12/ton. The revenues collected for recycling are only from the sorted material that is collected at the Recycling Center.

City of Waverly
Solid Waste Landfill Disposal Quantities

		2011-12	2012-13	2013-14	2014-15	2015-16
		Tons	Tons	Tons	Tons	Tons
July	<i>Residential:</i>	138.56	124.12	102.49	158.17	163.76
	<i>Commercial:</i>	206.02	186.55	197.63	199.22	204.42
		344.6	310.7	300.1	357.4	368.2
August	<i>Residential:</i>	141.69	127.4	144.43	111.16	146.22
	<i>Commercial:</i>	201.53	183.58	226.89	186.66	198.73
		343.2	311.0	371.3	297.8	345.0
September	<i>Residential:</i>	135.59	107.27	136.37	128.83	135.54
	<i>Commercial:</i>	219.35	191.05	173.7	155.88	222.66
		354.9	298.3	310.1	284.7	358.2
October	<i>Residential:</i>	88.83	122.7	114.26	130.03	152.11
	<i>Commercial:</i>	218.04	212.43	224.65	246.25	216.92
		306.9	335.1	338.9	376.3	369.0
November	<i>Residential:</i>	147.3	112.57	137.75	132.54	146.87
	<i>Commercial:</i>	186.21	194.81	192.28	178.65	208.55
		333.5	307.4	330.0	311.2	355.4
December	<i>Residential:</i>	106.68	103.44	119.01	155.2	140.09
	<i>Commercial:</i>	194.37	140.49	185.39	204.38	213.52
		301.1	243.9	304.4	359.6	353.6
January	<i>Residential:</i>	122.95	140.4	152.42	146.17	124.32
	<i>Commercial:</i>	187.7	88.79	145.97	180.99	170.93
		310.7	229.2	298.4	327.2	295.3
February	<i>Residential:</i>	78.05	92.34	100.5	114.4	125.26
	<i>Commercial:</i>	134.19	131.21	177.45	166.41	202.23
		212.2	223.6	278.0	280.8	327.5
March	<i>Residential:</i>	140.45	115.31	112.61	185.93	121.91
	<i>Commercial:</i>	225	188.59	196.4	188.14	210.67
		365.5	303.9	309.0	374.1	332.6
April	<i>Residential:</i>	98.14	128.3	128.2	125.3	138.18
	<i>Commercial:</i>	212.59	221.8	253.56	211.46	223.63
		310.7	350.1	381.8	336.8	361.8
May	<i>Residential:</i>	122.95	121.1	150.96	127.76	134.23
	<i>Commercial:</i>	250.85	276.48	249.33	193.09	246.73
		373.8	397.6	400.3	320.9	381.0
June	<i>Residential:</i>	140.13	122.12	95.89	147.24	154.59
	<i>Commercial:</i>	211.1	217.48	191.57	221.27	236.56
		351.2	339.6	287.5	368.5	391.2
TOTAL		3,908.3	3,650.3	3,909.7	3,995.1	4,238.6

City of Waverly
Bulky Items Collection

FY 2015-16

	2015						2016						Total	
	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Special Collection Week**	May		June
Appliances w/Freon						<i>*Yard Waste Site Closed</i>								
Refrigerators	4	1	5	3	4	3	4		3	11	2	8	15	63
Freezers	3		2		1	1				7	2	2		18
Air Conditioners	3	1		1						1		3	1	10
Dehumidifiers	8	5	4	4	2	1	1			6	1	8	11	51
Appliances w/out Freon														
Water Heater/Furnace		1	2	1	2	1	1		2			3	2	15
Water Softener		1	4	2					1	1	1		1	11
Stove	4	5	1	2	1		1	1	3	3	2	5	3	31
Washer	2	5	3	2	3	1		1		2	2	3	3	27
Dryer		5	2		1					4	5		2	19
Dishwasher	1	2	4	1		1	1	1	3	3		3	3	23
Humidifier	2			1	2						1	1		7
Gas Grill	6	7	6	3					3	15	11	8	12	71
Microwave	7	12	10	5	10	1	2	3	8	11	3	11	12	95
Electronics														
Televisions	38	28	28	31	29	11	9	16	41	62	12	39	48	392
Monitors														0
Printers		3	2							2	1			8
Computers	1										1			2
Tires														
Car		1		15	4				32	12	20	9	1	94
Truck					1									1
Tractor														0
TOTAL	79	77	73	71	60	20	19	22	96	140	64	103	114	938

**Bulky Items are collected at the Public Services site during the winters months that the Yard Waste Site is closed. No records were kept during this fiscal year.*

***Special Collection Week Records may not be accurate this fiscal year. Numbers may be low.*

City of Waverly
Department of Public Works
FY 2015-16

AIRPORT

Airport Commission Members (Since)

Mitch Bond (January 2008)	Active
Kris Glaser (February 2015)	Active
Dennis Hansen (May 2006)	Active
Dan Marsh (March 2006)	Inactive (as of January 2015)
Richard Lindell (May 2012)	Active
Jane Wollenzien (May 2014)	Active

Dale Guimond, Cedar Valley Aviation – FBO (January 2015)
Tim Kangas, Council Liaison (March 2015)
Mike Cherry, City Engineer (April 1997)

Highlights for July 2015 - June 2016

Land Acquisition

The Airport Land Acquisition 2012 project requires acquisition of real property and easements in order to expand the safety zone and also lengthen the runway 400 feet. The following parcels have been purchased or an easement (E) has been obtained (see attached drawing):

Parcels #2, 4 & 7 – William Lowe \$570,000
Parcels #3 & 10 – James & Sandra Janssen - \$155,500
Parcels #6 & 6E – Glen & Kathy Burkle - \$150,000
Parcel #8E – Mueller Farms - \$6,965

The following parcels have not yet been obtained:

Parcels 1 & 9 – Eugene & Jolene Miller (Clan Properties, LLC)
Parcel 5E – Marvin & Margene Schmidt

Runway Reconstruction

The reconstruction of the Waverly runway was started April 4, 2016, and substantially completed on July 1, 2016. The project was officially accepted as complete on October 3, 2016. The project replaced the 2,800 feet long runway and widened the strip by 10 feet to 60 feet wide.

The reconstruction was approved by the FAA and the cost will be funded 90% by the Federal Aviation Trust Fund and funded 10% locally through the city's urban renewal authority.

Insulation – Mechanics Room

In January 2014 the Council awarded the contract for insulating the Mechanics Room to Prairie Construction of Waverly. Due to the poor workmanship, on August 2015 the Council rejected Prairie's work. A new quote was approved by Kinzler Construction in September 2015 and the new insulation was installed and accepted by the City.

Looking to the Future:

- The completion of the land acquisition for the runway safety area and the 400-foot eastward extension of the runway remain high priorities for the Waverly Airport Commission.
- McClure Engineering Company's 5-year on-call contract with the City has effectively expired. The City needs to complete the FAA approved procurement process for on-call services in order to avoid repeating the procurement process for each individual FAA funded project over the next 5 years.
- The FBO / Airport Manager contract will expire on October 31, 2018.

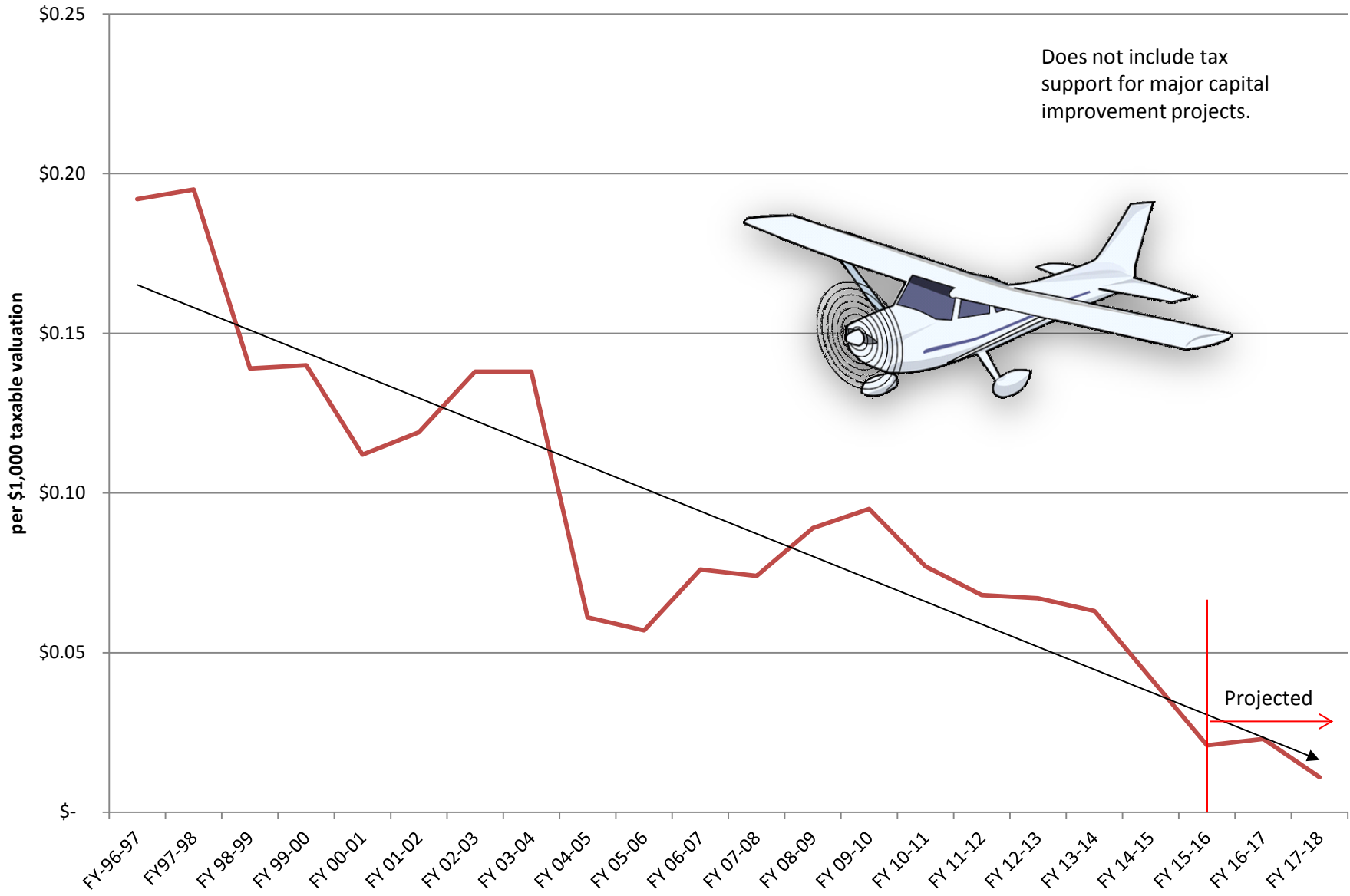
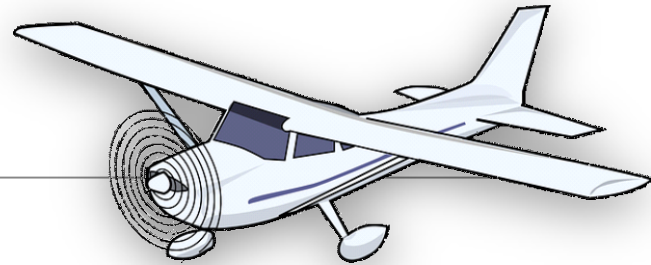
Report Summary:

The Waverly Airport continues providing valued services to the community and the surrounding region. The Airport Commission is proud of the advancements that have been made and appreciate the City's support and help in those efforts. Waverly is a steadily growing community and the Airport continues to provide a significant economic benefit at minimal cost to the City's tax payers.

Waverly Municipal Airport

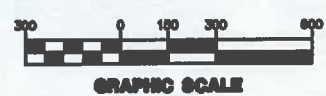
General Fund Tax Support

Does not include tax support for major capital improvement projects.

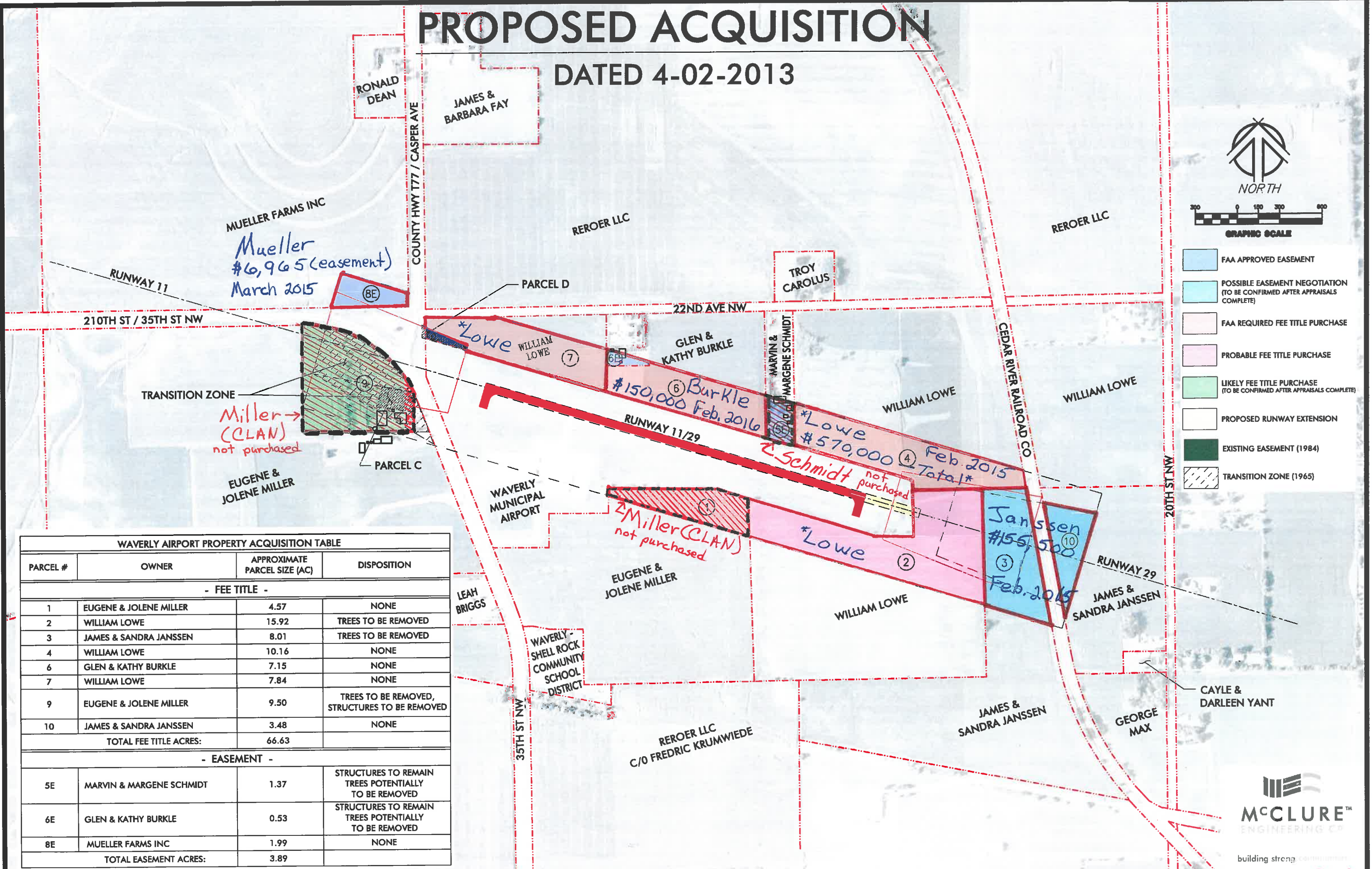


PROPOSED ACQUISITION

DATED 4-02-2013

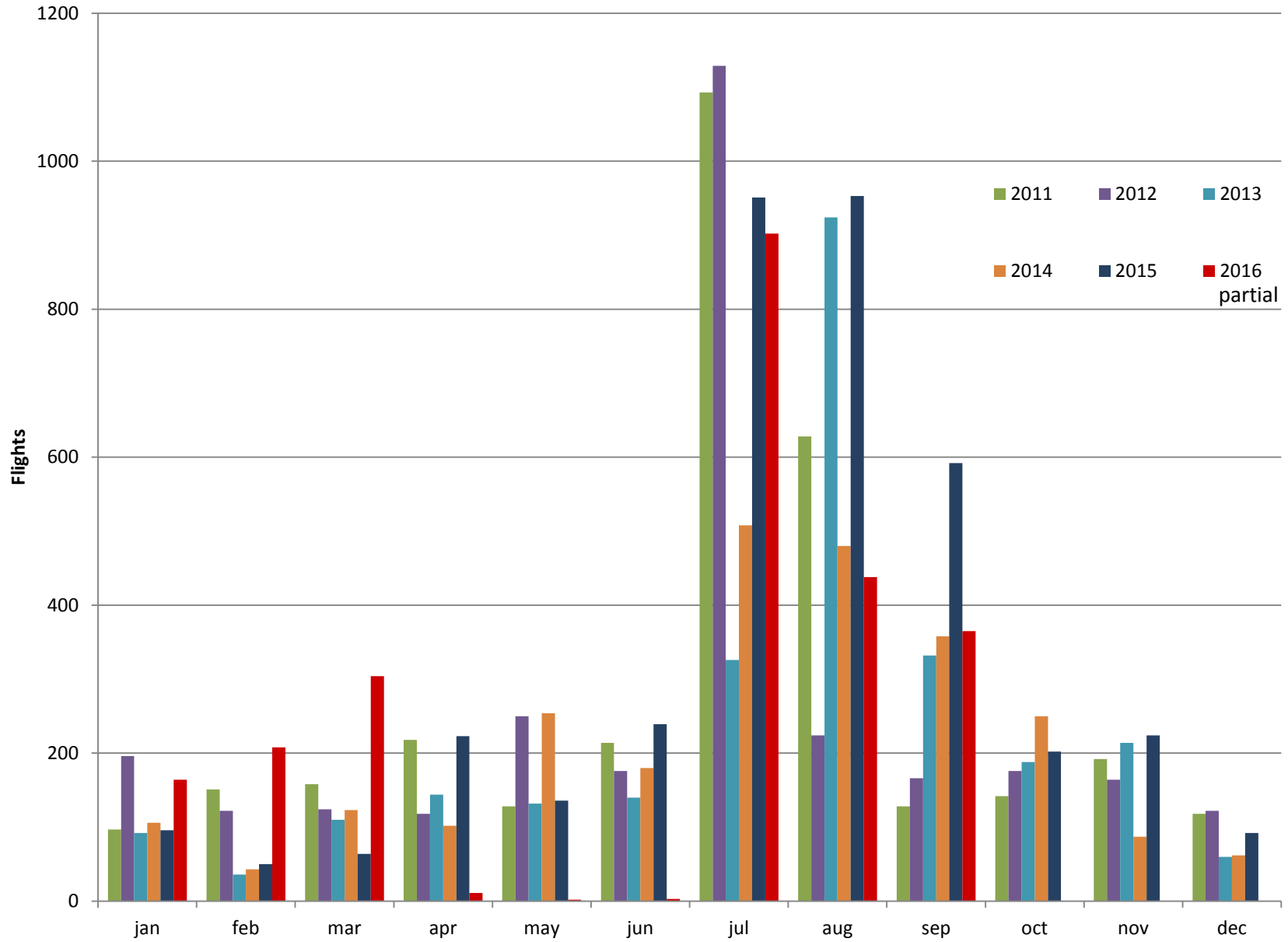


- FAA APPROVED EASEMENT
- POSSIBLE EASEMENT NEGOTIATION (TO BE CONFIRMED AFTER APPRAISALS COMPLETE)
- FAA REQUIRED FEE TITLE PURCHASE
- PROBABLE FEE TITLE PURCHASE
- LIKELY FEE TITLE PURCHASE (TO BE CONFIRMED AFTER APPRAISALS COMPLETE)
- PROPOSED RUNWAY EXTENSION
- EXISTING EASEMENT (1984)
- TRANSITION ZONE (1965)



WAVERLY AIRPORT PROPERTY ACQUISITION TABLE			
PARCEL #	OWNER	APPROXIMATE PARCEL SIZE (AC)	DISPOSITION
- FEE TITLE -			
1	EUGENE & JOLENE MILLER	4.57	NONE
2	WILLIAM LOWE	15.92	TREES TO BE REMOVED
3	JAMES & SANDRA JANSSEN	8.01	TREES TO BE REMOVED
4	WILLIAM LOWE	10.16	NONE
6	GLEN & KATHY BURKLE	7.15	NONE
7	WILLIAM LOWE	7.84	NONE
9	EUGENE & JOLENE MILLER	9.50	TREES TO BE REMOVED, STRUCTURES TO BE REMOVED
10	JAMES & SANDRA JANSSEN	3.48	NONE
TOTAL FEE TITLE ACRES:		66.63	
- EASEMENT -			
5E	MARVIN & MARGENE SCHMIDT	1.37	STRUCTURES TO REMAIN TREES POTENTIALLY TO BE REMOVED
6E	GLEN & KATHY BURKLE	0.53	STRUCTURES TO REMAIN TREES POTENTIALLY TO BE REMOVED
8E	MUELLER FARMS INC	1.99	NONE
TOTAL EASEMENT ACRES:		3.89	

Flight Report



Flight Report

