



# Public Works / Engineering Department 2010 ANNUAL REPORT

## *Streets Division*



## *Utilities Division*



## *Water Reclamation Facility*



## *Engineering Division*



Submitted by: **Tim Murray, P.E., Director of Public Works/City Engineer**

Date: **March 15, 2011**

**PUBLIC WORKS/ENGINEERING DEPARTMENT  
City of Faribault**

**2010 Annual Report**

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**PUBLIC WORKS/ENGINEERING DEPARTMENT  
City of Faribault**

**DEPARTMENT OVERVIEW**

**Primary Objectives**

The goal of the Public Works/Engineering Department is to operate, maintain, and improve the City's infrastructure systems in the most fiscally responsible fashion, while protecting public safety and maximizing customer satisfaction.

The Public Works/Engineering Department provides the citizens of Faribault with everyday comforts that ideally are taken for granted. These include, among other things, safe and serviceable roadways, clean drinking water, and collection and treatment of sanitary sewer.

**2010 Highlights**

- **September 2010 Flood**

The flood of September easily dominates the year in terms of impacts to the City, its residents, its employees, and this department. The Straight River crested over two feet higher than the previously recorded high, flooding areas in the downtown and near the confluence of the Straight and Cannon Rivers, causing several streets to be closed for a number of days. In addition to direct property damage, the most devastating impact was the destruction of a major segment of the sanitary sewer collection system, caused by the shifting of the channel of the Straight River adjacent to the Water Reclamation Facility.

The damage caused by the flooding required the significant reassignment of personnel for a number of weeks both during the flood, but also in its aftermath. The Water Reclamation was completely off line for six days, and following its resumption, we had to set up, operate, and maintain extensive by-pass pumping systems to put the sanitary sewer collection system back in service. Permanent repairs were done under three emergency construction contracts. Each and every member of the department played key roles in dealing with this emergency.

- **Reorganization**

As part of a City-wide restructuring plan, the Engineering Department was combined with Public Works, and put under a single director effective July 1<sup>st</sup>. A permanent fulltime employee from Engineering was also let go as part of a reduction in force in July of 2010, due to decreased workload levels. Stormwater personnel, which previously reported directly to the Director of Public Works, were reassigned under the Utilities Superintendent. Lastly, the Municipal Airport, while still within the new Public Works/Engineering Department, remained under the direction of the Finance Department, as is projected to remain so through 2011.

- **Water Reclamation Facility**

Although the September flooding did disrupt things briefly, the construction on the \$26M upgrade project continued throughout the year. Several new buildings, such as the new Headworks, Blower/Electrical, and Thickener Buildings all took shape over the course of the year. The project, which is slated for completion at the end of 2011, touched just about every structure and operation within the 54-year old facility.

The project will advance the level of automation and control systems at the plant. While the improvements will help in meeting more stringent discharge requirements, a lot of the work is simply for the replacement of aged components of the plant.

- **Streets Division**

In addition to the regular summer work of seal coating and street sweeping, the City crews undertook the paving of overlays on two downtown area parking lots. An outside contractor did concrete replacement work, but City personnel did all the patching work, edge milling, paving of a 1.5”–2” bituminous overlay, re-painting of the parking stalls, and replacement or addition of signage as warranted.

The end of the year also saw winter arrive fairly early, and with a vengeance. A major storm in early December dumped nearly a one and a half feet of snow on Faribault, a sign of things to come for the winter of 2010-11.

- **Utilities Division**

City Staff updated, submitted, and received approval of the City’s Wellhead Protection Plan, a document required by the Minnesota Department of Health. The updated plan will be in effect for the next 10 years, with the City being responsible for implementing specific actions to protect the City’s drinking water supply.

A revised storm water ordinance was drafted in 2010 that changes the basis of the fee calculations for Storm Water Utility charges. Development of the new rate structure, scheduled for adoption in early 2011, included calculating an average impervious surface area for 100 single family homes to set a specific value equal to one Residential Lot Equivalent (RLE). This approach will result in a more equitable charge for commercial and industrial parcels within the city, as improved technology and available mapping data provides for more accurate calculations.

- **Engineering Division**

The reconstruction of Western Avenue, between 17<sup>th</sup> Street N.W. and 30<sup>th</sup> Street N.W., upgraded a gravel roadway to an urban-section paved street, with an adjacent bituminous walkway. This completes an important link in the northwest area of the city, providing an alternate routing from T.H. 60 at Western Avenue to T.H 21 at 30<sup>th</sup> Street N.W., as well as improved access for adjacent neighborhoods.

**PUBLIC WORKS/ENGINEERING DEPARTMENT  
City of Faribault**

**2010 PUBLIC WORKS / ENGINEERING ADMINISTRATION PERSONNEL**



Tim Murray  
Director of Public Works /  
City Engineer  
2/4/2008



Theresa Manz  
Department Secretary  
1/10/1983



Peggy Schulz  
Clerk  
1/5/2006

**2010 ORGANIZATIONAL / PERSONNEL CHANGES**

As part of an overall City reorganization, the Public Works Department became the Public Works/Engineering Department in 2010. Several things occurred as part of this change. First, the separate positions of Director of Public Works and City Engineer were combined under one director. Second, Engineering became a division under the newly combined department, and an Engineering Supervisor position was created (filled by Glenn Cunningham). Third, the Graduate Engineer position in Engineering was eliminated (due to workload), resulting in the release of one permanent employee (Jenna Grubbs). Fourth, direction of Storm Water personnel was shifted from the Director of Public Works to the Utilities Superintendent. And fifth, direction of the Airport, although a division of Public Works/Engineering, remained under the Finance Department for the time being, as it has been since the second half of 2009.

Other than the reorganization changes outlined above, the staffing within the Public Works/Engineering Department remained very stable. We did not have any retirements or resignations in 2010, and the reductions in staffing were limited to the elimination of a director-level position (0.5 FTE) and the Graduate Engineer (1.0 FTE). Total permanent staffing in the Department is as follows (an Organizational Chart is shown on the next page, and includes one temporary employee in Equipment Maintenance):

PW/E Administration	3 employees
Streets Division	11 employees
Utilities Division	9 employees
Water Reclamation Facility	7 employees
Engineering Division	<u>4 employees</u>
	34 employees

# Organizational Chart

## Department of Public Works & Engineering

Director of Public Works/City Engineer  
Tim Murray

Department Secretary  
Theresa Manz

Utilities Clerk  
Peggy Schulz

### Streets Division

Street Superintendent  
Duane Pemrick

Streets Foreperson Darrell Haag	
HEO	Mark Moreau
HEO	Gary Carver
HEO	Jerry Marzahn
HEO	Bob Reichert
LEO	Ken Borwege
LEO	Jerry Kolling
LEO	Brent Fuchs

Equip. Maint. Foreperson Paul Froman	
Mechanic	Scott Meyer
PT Mech.	Kevin Krenske

### Utilities Division

Utilities Superintendent  
Dennis DuChene

Utilities Foreperson Jim Hausen	
W/S Op III	Mike Glende
W/S Op II	Bob Erickson
W/S Op II	Tim Vaupel
W/S Op I	Steve McDowell
W/S Op I	Tom Judd

Water Quality Specialist Adam Kordiak	
StmW Tech	Joe Bongers

### Water Reclamation Facility

Wastewater Superintendent  
Henry Morgan

Foreperson	Travis Block
Lab Tech	Mike Grossman
Operator	Matt Mensing
Operator	John Frame
Operator	Marty Smith
Operator	Chas Schrot

### Engineering Division

Engineering Supervisor Glenn Cunningham	
Engr Tech III	Dale Drentlaw
Engr Tech I	Jeff Lang
GIS/CAD Tech	Rubin Siefert

### Airport

Fixed Base Operator (Contract) Jerry Serres	
Contract Employees <i>(Currently assigned to Finance)</i>	

**Public Works / Engineering Budget History (Expenditures)**

<b>Function</b>	<b>2008 Actual</b>	<b>2009 Actual</b>	<b>% Change</b>	<b>2010 Revised</b>	<b>% Change</b>
<b>General Fund</b>					
Public Works Administration	\$ 189,034	\$ 192,556	1.86%	\$ 203,847	5.86%
Street Maintenance	\$ 1,891,528	\$ 1,536,596	-18.76%	\$ 1,560,418	1.55%
Equipment Maintenance	\$ 176,808	\$ 205,028	15.96%	\$ 204,213	-0.40%
General Fund Totals	\$ 2,257,370	\$ 1,934,180	-14.32%	\$ 1,968,478	1.77%
<b>Enterprise Funds</b>					
Water Distribution	\$ 2,179,010	\$ 2,096,262	-3.80%	\$ 3,625,140	72.93%
Sewer Collection System	\$ 1,020,905	\$ 1,352,553	32.49%	\$ 2,087,666	54.35%
Water Reclamation Facility *	\$ 3,129,203	\$ 2,690,133	-14.03%	\$ 4,799,824	78.42%
* Upgrade Construction Budget not Included					
Storm Water Utility	\$ 424,313	\$ 490,526	15.60%	\$ 663,465	35.26%
Enterprise Fund Totals	\$ 3,553,516	\$ 3,180,659	-10.49%	\$ 5,463,289	71.77%
<b>Internal Service Funds</b>					
Engineering	\$ 537,210	\$ 545,073	1.46%	\$ 642,353	17.85%
<b>TOTAL</b>	<b>\$ 9,548,011</b>	<b>\$ 9,108,727</b>	<b>-4.60%</b>	<b>\$ 13,786,926</b>	<b>51.36%</b>

# Streets & Equipment Maintenance Division 2010 Annual Report



Submitted by: Duane Pemrick, Street Superintendent

**PUBLIC WORKS/ENGINEERING DEPARTMENT**  
**City of Faribault**

**STREETS & EQUIPMENT MAINTENANCE DIVISION**  
**2010 Activities & Highlights**

**STREET MAINTENANCE**

- **Asphalt Roadway Maintenance**
  - Street Patching/Paving (536.5 tons bituminous mix)
    - : Patch Truck 42.5 tons
    - : Seal Coat Program 209.0 tons
    - : County Roads 21.0 tons
    - : Watermain Break Repairs 203.0 tons
    - : Catchbasin Repairs 61.0 tons
  - Crackfilling (15,231 Pounds of Rubberized Crack Filler)
    - : Preparation for seal coating and maintenance overlays
  - Targeted Patching/Spot Overlays/Crack Filling
    - : Central Avenue – 6<sup>th</sup> Street NW to 14<sup>th</sup> Street NW
    - : Rice County State Aid Highway #20 (St. Paul Avenue)
  
- **Seal Coat Program (100 Blocks)**
  - Applied 32,592 gallons of HFMS-2 Asphalt Emulsion
  - Applied 2,500 tons of Granite Chip Seal Aggregate
  
- **Street Sweeping (5,164 Miles)**
  - City Street Sweeping Performed
    - : 3 times for spring-clean up (1423 hrs.)
    - : 2 times for general summer clean up (680 hrs.)
    - : 3 times for fall leaf clean up (905 hrs.)
    - : Spring and Fall sweeping of all City parking lots
    - : Bi-weekly sweeping of the Downtown Business District
  
- **Snow & Ice Control**
  - Plowing, sanding and blowing for the removal of 63.5” of snow
  - Mixed 520 loads of sand/salt mixture
    - : Average mixture was 14% ratio of salt to sand
  - Used 519 tons of salt
  - Used 3,679 tons of sand
  
- **Gravel Roadway Maintenance (129 Hours)**
  - 16<sup>th</sup> Avenue NE
  - Division Street E
  - Matteson Street
  - Belview Trail
  - Alleys – City-wide

- **Signs and Pavement Markings**
  - Painted Striping/Pavement Markings (327 hours)
    - : All school advance warning and crosswalks
    - : City pedestrian cross walks
    - : City public parking lots
    - : Curbs
    - : Fire Station, City Hall, Community Center, Library and City Parks parking lots
    - : Specials due to reconstruction, pavement overlaying, seal coating or special requests from administration.
  - Paint Consumption in 2010
    - : 205 gallons – white
    - : 25 gallons - yellow
    - : 5 gallons - blue
  - Special Sign Installations
    - : Continued with the street sign replacement program
    - : Continued with the stop sign replacement program
    - : Per Council installed new signs for City Parking Lots #11 & #17
    - : As construction permitted, installed new signs in the new development additions
    - : Routine sign maintenance and replacement of signs as needed

## **UTILITIES SUPPORT**

- **Watermain Break Repairs – 9 Locations**
  - 20<sup>th</sup> Street NW
  - Prairie Avenue
  - Conliffe Avenue
  - Hulett Avenue NW
  - 16<sup>th</sup> Street NW
  - St. Paul Avenue & Parshall Street
  - Mitchell Drive
  - 11<sup>th</sup> Street NE & 3<sup>rd</sup> Avenue NE
  - 3<sup>rd</sup> Street NE & 5<sup>th</sup> Avenue NE
- **Storm Sewer Repair Patching - Faribault Airport taxiway**

## **FESTIVAL / SPECIAL EVENT SUPPORT**

- **Heritage Days**
  - Installed and removed detour signage
  - Posted parking restrictions
  - Installed and removed street closure assembly area
  - Sweep parade route areas before and after the parade
- **Pet Parade**
  - Swept parade route areas before and after the parade
  - Set out and picked up barricades for parade
- **Jesse James Bike Rally**
  - Swept the streets and bike paths along the bike route
- **Downtown Blue Collar & Chili Cook-Off Festivals**
  - Swept the streets and supplied barricades for street closures

## **GENERAL MAINTENANCE / OTHER**

- Crushed rock installation (732 tons – ¾” crushed rock)
  - Waterway erosion control
  - Watermain breaks
  - Flood control for sewer main system
  - Stabilizing base for gravel roads
  - Base for asphalt patching
  - Base for bike trails
- Roadside / weed mowing (340 hours)
- Trimmed trees and brush from bridge abutment areas
- Trimmed trees for seal coat program
- Replaced all Semaphore light bulbs per State maintenance agreement
- Hauled pit run to Nature Center for wash outs on trails and roads
- Helped with the removal of furniture and carpet at City Hall

## **2010 HIGHLIGHTS / SPECIAL PROJECTS**

- **Downtown Parking Lot Improvements (Lots #11 & #17)**
  - Bituminous milling, patching and overlay paving  
: 398.0 tons bituminous mixture
  - 243 hours staff time
  - Installed new signage
  - Striping lay-out and painting
- **September Flood Response**
  - Filling, delivering, and installing sand bags
  - Provide and install barricades and traffic control devices
  - Assisted Utilities Division with sewer by-pass piping and pumping
  - Helped coordinate the clean up effort after the flood
  - 616.5 hours staff time
- **Seal Coat Program**
  - 100 city blocks
  - Crack filling – 592 hours staff time
  - Seal coating – 580 hours staff time

## 2010 TOTALS – STAFFING HOURS

<u>Job Category</u>	<u>Total Hours</u>
Patching	1879
Snow Plowing	1809
Spring Sweeping	1426
Vacation	1179.5
Sick Leave	1056.5
Water Main Breaks	919
Leaf Sweeping	904.5
General Sweeping	680
Office	671
Equip. Maintenance	663.5
Miscellaneous (Flood Response)	616.5
Snow Blowing	605.5
Crack Filling	591.5
Stock Pile Shot Rock	586
Seal Coating	580
Paid Holiday	576
Sanding	529
Mixing Sand	518
Sign Maintenance	446
Storm Sewer Cleaning	395
Weed Mowing	340
Painting	327.5
Special Projects (City Parking Lots)	243
Stock Pile Gravel/Pit Run	222
Floating Holiday	216
Comp. Time	209.5
Sign Making	201
Milling	196
Training	196
Sign Installation	185.5
Building Maintenance	169
Gravel Maintenance	129
Overlaying	128.5
Traffic/Street Lights	109
Festival Events	95
Stock Pile Crush Rock	68
Funeral Leave	49
Storm Sewer Repairs	38
Tree Trimming	30
Casting Repairs	16
Locates	14
<b>Annual Total</b>	<b>19,813.50</b>

# **Equipment Maintenance Shop 2010 Annual Report**

## **Streets Division - Services Provided**

- 1) Preventive maintenance
- 2) General repairs
- 3) Fabrication and welding (137 hours)
- 4) DOT vehicle inspections
- 5) Aid in new vehicle and equipment purchases
- 6) Assist and advise personnel on service work and repairs
- 7) Out-of-shop duties
  - a) Seal-coating 108 hours
  - b) Heritage Days Parade 4 hours
  - c) Plow snow 61.5 hours

**Total Hours of Service to Streets Division = 1545.5**

**Work Orders Completed = 248**

## **Utilities Division – Services Provided**

- 1) Maintain a complete service and preventive maintenance program
- 2) General repair
- 3) Fabrication
- 4) Welding projects (out of shop manholes, lift-pumps, meter boxes)
- 5) DOT inspections
- 6) Aid in new vehicle and equipment purchases

**Total Hours of Service to Utilities Division = 589**

**Work Orders Completed = 75**

## **Storm Water - Services Provided**

- 1) Set up new truck
- 2) Scheduled and preventive maintenance
- 3) General repair
- 4) Fabrication

**Total Hours of Service to Storm Water = 35**

**Work Orders Completed = 18**

### **Water Reclamation Facility - Services Provided**

- 1) General repair
- 2) Fabrication (12 hours)
- 3) Repairs at Treatment Plant (mostly welding projects)
- 4) DOT inspections
- 5) Aid in new vehicle and equipment purchases

**Total Hours of Service to Water Reclamation Facility = 61**  
**Work Orders Completed = 13**

### **Engineering Division - Services Provided**

- 1) Scheduled maintenance
- 2) Preventive maintenance
- 3) General repair

**Total Hours of Service to Engineering = 11.5**  
**Work Orders Completed = 5**

### **Public Works Maintenance Shop - Services Provided**

- 1) Maintenance on shop equipment
- 2) Building repairs
- 3) Shop truck repairs
- 4) Purchase shop tools and equipment
- 5) Cleaning of Maintenance Shop area
- 6) Special projects
  - a) Fabricate roller stand for plate steel storage
  - b) Fabricate and install ventilation hood on welding table

**Total Hours of Service to Shop = 163.5**

### **Parks Maintenance - Services Provided**

- 1) Preventive maintenance
- 2) General repairs
- 3) Fabrication (51 hours)
- 4) Aid in the purchase of new vehicle and equipment purchases
- 5) Assist and advise Parks Department personnel on repair and service work

**Total Hours of Service to Parks Maintenance = 526**  
**Work Orders Completed = 152**

### **Park and Recreation - Services Provided**

- 1) Scheduled maintenance
- 2) Preventive maintenance
- 3) General repair
- 4) Equipment repairs (basketball hoops, backboards, lane markers etc.)

**Total Hours Service for Community Services = 30**

**Work Orders Completed = 11**

### **Public Safety - Services Provided**

- 1) Scheduled maintenance on 19 police units
- 2) Preventive maintenance
- 3) General repair
- 4) Radio and light-bar repair
- 5) Fabrication
- 6) New car set-up
- 7) Special Services animal cage repair

**Total Hours of Service to Public Safety = 417.5**

**Work Orders Completed = 158**

### **Community Development - Services Provided**

- 1) Scheduled maintenance
- 2) Preventive maintenance
- 3) General repair

**Total Hours Service to Community Development = 8**

**Work Orders Completed = 30**

### **Transit System - Services Provided**

- 1) Scheduled maintenance on 3 buses
- 2) Preventive maintenance
- 3) General repairs
- 4) DOT inspections
- 5) Aid in the purchase and set up of new transit bus

**Total hours of Service to Transit System = 193.5**

**Work Orders Completed = 52**

### **Building Codes - Services Provided**

- 1) Scheduled maintenance
- 2) Preventive maintenance
- 3) General repair
- 4) New vehicle set-up

**Total Hours of Service to Building Codes = 11**  
**Work Orders Completed = 5**

### **Airport - Services Provided**

- 1) Preventive maintenance
- 2) General repair

**Total Hours of Service to Airport = 147.5**  
**Work Orders Completed = 13**

### **Nature Center - Services provided**

- 1) General repair

**Total hours of service to Nature Center = 21.5**  
**Work Orders Completed = 12**

### **Public Works & Parks Building Maintenance and Repairs**

- 1) Complete maintenance and repairs on 30 mechanical units
- 2) Work with MPCA to set up a monthly inspection program for fuel system
- 3) Fuel system, complete monthly reports for department usage and fuel tax, order fuel as needed
- 4) Repair fuel system as needed
- 5) Automatic truck wash perform maintenance and repairs

**Total Hours on PWP Building Maintenance and Repairs = 70**

### **Training**

- 1) DOT recertification – Paul and Scott
- 2) Safety meetings
- 3) Electronic fuel systems – Paul and Scott
- 4) Automotive AC repair and recycle

**Total Hours for Training = 41**

## **General Office Time**

- 1) Updating maintenance records (weekly)
- 2) Coding of bills (weekly)
- 3) Recording a daily work log
- 4) Maintaining parts inventory
- 5) Police mileage and scheduled maintenance (weekly)
- 6) Budget & annual report
- 7) Purchase shop tools and equipment
- 8) Utility mileage and schedule maintenance (weekly)

**Total Hours General Office Time = 248**

## **Miscellaneous**

- 1) Twenty-one garbage truck inspections
- 2) City Hall office equipment repair
- 3) Miscellaneous small welding projects
- 4) Safety Committee

## **Special Projects**

- 1) Fabricate adjustable stands and develop procedure for well valve replacement, oversee project (32 hours)
- 2) Fabricate 20 tie-off stands for fall protection at lift pump stations (43 hours)
- 3) Maintain transfer pumps during flood and wile repairs to sewer system were being completed

**Submitted by: Paul Froman, Equipment Maintenance Foreperson**

# Utilities Division 2010 Annual Report



Submitted by: **Dennis DuChene, Utilities Superintendent**

**PUBLIC WORKS/ENGINEERING DEPARTMENT**  
**City of Faribault**

**UTILITIES DIVISION**  
**2010 Activities & Highlights**

**PRIMARY RESPONSIBILITIES**

1. Water Supply system maintenance and repair. Perform scheduled maintenance on all necessary components of the water pumping station, wells, storage reservoirs, elevated tower, eastside booster station, and generators.
2. Provide day to day operation of the municipal water supply. Treat water with chlorine for disinfection, fluoride for healthy teeth, and sodium silicate to inhibit lead/copper concentrations.
3. Water Distribution system, valves and hydrants maintenance and repair.
4. Wastewater collection system maintenance and repair.
5. Storm Sewer system maintenance and repair.
6. Storm Pond maintenance and inspections.
7. Construction site inspection for erosion and sediment control.
8. Locates – Gopher State One calls.
9. Equipment and vehicle maintenance issues.
10. Handle customer service calls such as closing accounts, pressure problems, water quality complaints, and locating water shut offs.
11. Install and maintain water meters in commercial and residential buildings.
12. Locate curb stops and shut offs as required.
13. Repair watermain breaks.
14. Flush fire hydrants semi-annually.
15. Construction related issues, such as water shutdowns, notifications, bacteria testing, sewer collection systems bypasses, and water quality inspections.

**ALTERNATE RESPONSIBILITIES**

1. Assist Streets Division with winter snowplowing, hauling and sanding.
2. Heritage Days Parade staffing.
3. Assist Water Reclamation Facility with jetting primary clarifier scum lines.

## **2010 HIGHLIGHTS**

### **1. September 2010 Flood**

When rain started falling throughout the day on Wednesday, September 22<sup>nd</sup>, the City of Faribault didn't know what it was in for. Heavy sporadic downpours continued on Thursday September 23<sup>rd</sup> as crews were called in for a sewer backup at 3:30am. As the Straight River started to overflow its banks, utility crews sandbagged around the Viaduct Lift Station, but by noon Xcel Energy was called and power was disconnected as the lift station was under water.

Utility crews started bypass pumping at various points on the collection system to prevent damage to businesses and homes. Rain continued and on Friday, September 24<sup>th</sup>, the river overflowed its banks where the Cannon and Straight Rivers meet. The Water Reclamation Facility (WRF) started to flood and workers left the site at about 10:00am. Faribault activated Minnesota's MnWarn (Minnesota's Water/Wastewater Agency Response Network) for additional bypass pumps. Crews set 6 bypass pumps at various interceptor mains to help ease sewers backing up into homes and businesses, these pumps directly discharged into the storm sewers. City workers started to monitor these bypass pumps 24 hours a day. The City also declared a state of emergency restricting commercial and industrial discharge into the collection system.

As the river receded, the bypass pumps were relocated closer to the river siphons that connected to the WRF. The river continued to recede and the City found that the channel of the Straight River had shifted to the west and the force of the river had dislodged the siphon boxes from their bases. This resulted in river water entering the collection system through broken pipes. Pipes and sewer structures were then plugged off at various spots to stop river water from entering the collection system. On October 1<sup>st</sup>, crews set up 4,300 feet of bypass piping to send sewage to the WRF. MnWarn pumps were replaced with pumps from Northern Dewatering. Commercial and industrial customers were then allowed to resume discharge. Crews continued to work 24 hours a day, monitoring the four bypass pumps and temporary above-ground lines. The City kept an extra 6" and 8" pump on standby as backup for pump failures. BCM and Ellingson Companies were hired under three emergency contracts to make repairs to the collection system and siphon boxes. The repairs were completed on Friday, November 12<sup>th</sup>, the bypass pumps and temporary piping were then disconnected, and the collection system resumed normal operations.

### **2. Wellhead Protection Plan Update**

The City of Faribault's Wellhead Protection Plan (WHPP) was updated, submitted, and accepted by the Minnesota Department of Health (MDH) in July 2010. The plan will be in effect for 10 years, with the City being responsible for implementing the WHPP Action Plan. The WHPP was prepared in cooperation with the MDH. It contains specific actions that the City will need to take to protect the City's drinking water supply.

In 2009, the City organized a WHPP team comprised of various City employees to work on the plan. This team compiled data to protect the City's water supply from potential contaminant sources. Some of the data that the team assessed related to the impacts on the use of the water supply wells, delineation of the WHPP area, quality and quantity of the drinking water supply, and land and water use within the Drinking Water Supply

Management Area (DWSMA). The WHPP contains a Measures and Action Plan. Based on the factors that the WHPP team has identified, these measures will be implemented by the City over the 10 year period that the WHPP is in effect.

The following categories that are used to further clarify each WHPP measure are Contingency Planning, Data Collection, Inner Well Management Zone, Land Use Management, Potential Contamination Source Management, Public Education and Outreach, and Reporting and Evaluation. City Staff took the initiative to update the City's WHPP with the help of the MDH both as a cost savings measure (as opposed to hiring a private consultant, as in the past) and so that City Staff would have a better understanding of the required Action and Measures over the period of the WHPP.

In 2010, City Staff also updated the Department of Natural Resources (DNR) Water Supply Plan (waiting DNR approval.), revised and updated the Collection System's Capacity Management Operations Maintenance (CMOM) Plan, and the Water Department Emergency Response Plan.

### **3. Source Water Protection Plan Grant**

City Staff applied for and received a Source Water Protection Plan Grant in the amount of \$10,000 to help offset the cost of permanently sealing a well drilled in 1912 on Riverbend Nature Center Property. This property was deeded to the City of Faribault on February 19, 1999 by Quit Claim Deed from the State of Minnesota. The well is 750 feet deep and estimated cost range to seal the well is \$30,000 to \$75,000 because it is in a flood zone.

### **4. Stormwater Utility Rate Restructuring**

The City has received valid complaints from midsize businesses that pay more in storm water fees than some large commercial enterprises. The City's Water Quality Specialist drafted a revised storm water ordinance changing the basis of the fee calculations. Most stormwater utility fees for cities in Minnesota are now calculated by using total area of impervious surface for each parcel. Our past rate structure for stormwater was based upon parcel size instead of the amount of impervious surface which contributes to direct runoff. The larger the amount of impervious surface the greater the runoff and consequently the larger impact on surface waters.

Development of the new rate structure included calculating an average impervious surface area for 100 single family homes to set a specific value equal to one Residential Lot Equivalent (RLE). This was set at 3000 square feet of impervious surface. Every family dwelling is equal to one RLE and is charged \$10 per quarter (proposed to be revised to \$3.50/month under a monthly billing structure). The next step was to measure the quantity of impervious surface for each commercial/industrial parcels within City Limits, divide by the area of one RLE (3000 SF) to get a value to multiply by the base rate of \$3.50/month.

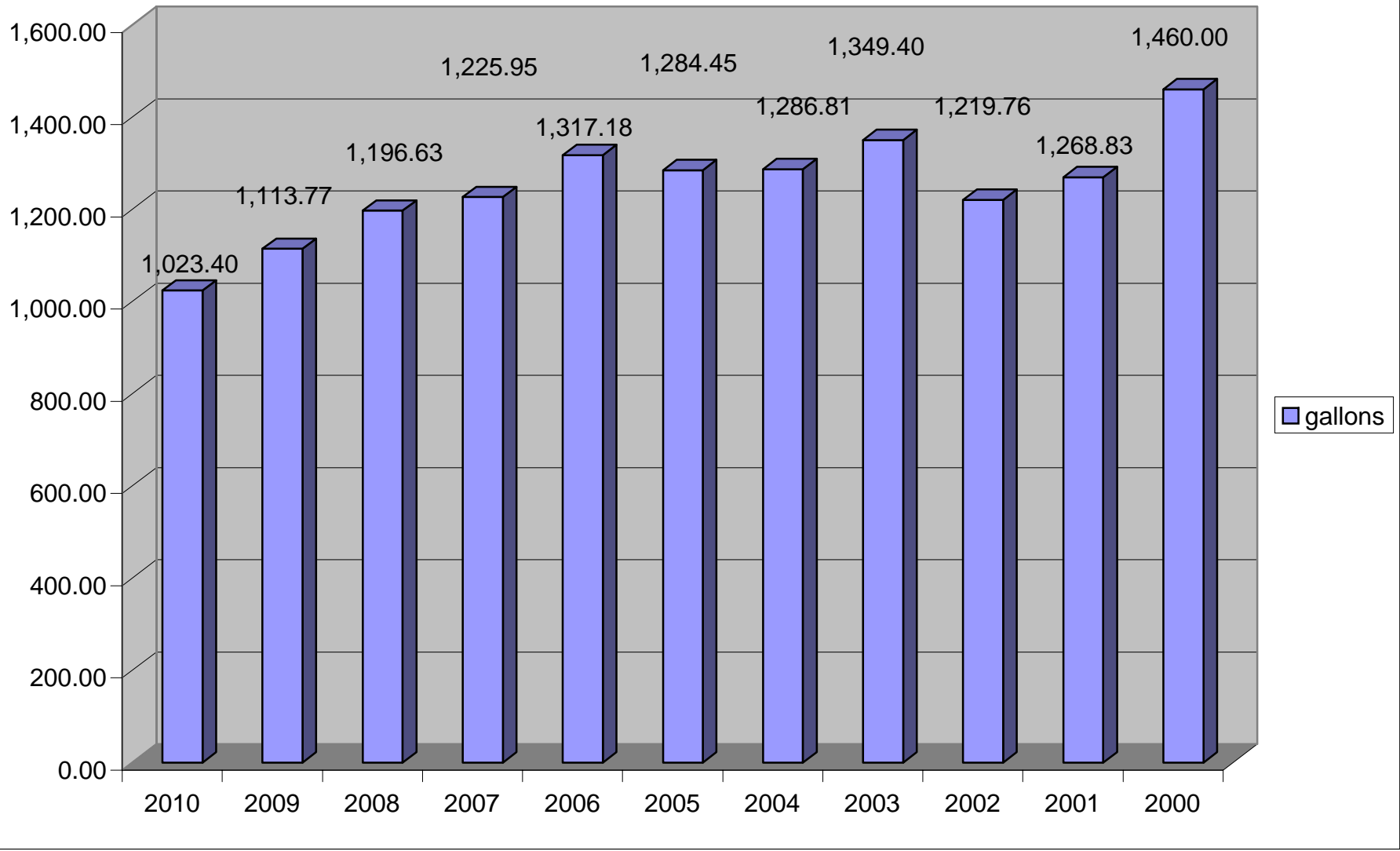
## **PERSONNEL/STAFFING**

There were no personnel changes in 2010. Stormwater personnel were put in the Utilities Division, under the supervision of the Utilities Superintendent, as part of the City Reorganization that occurred in 2010.

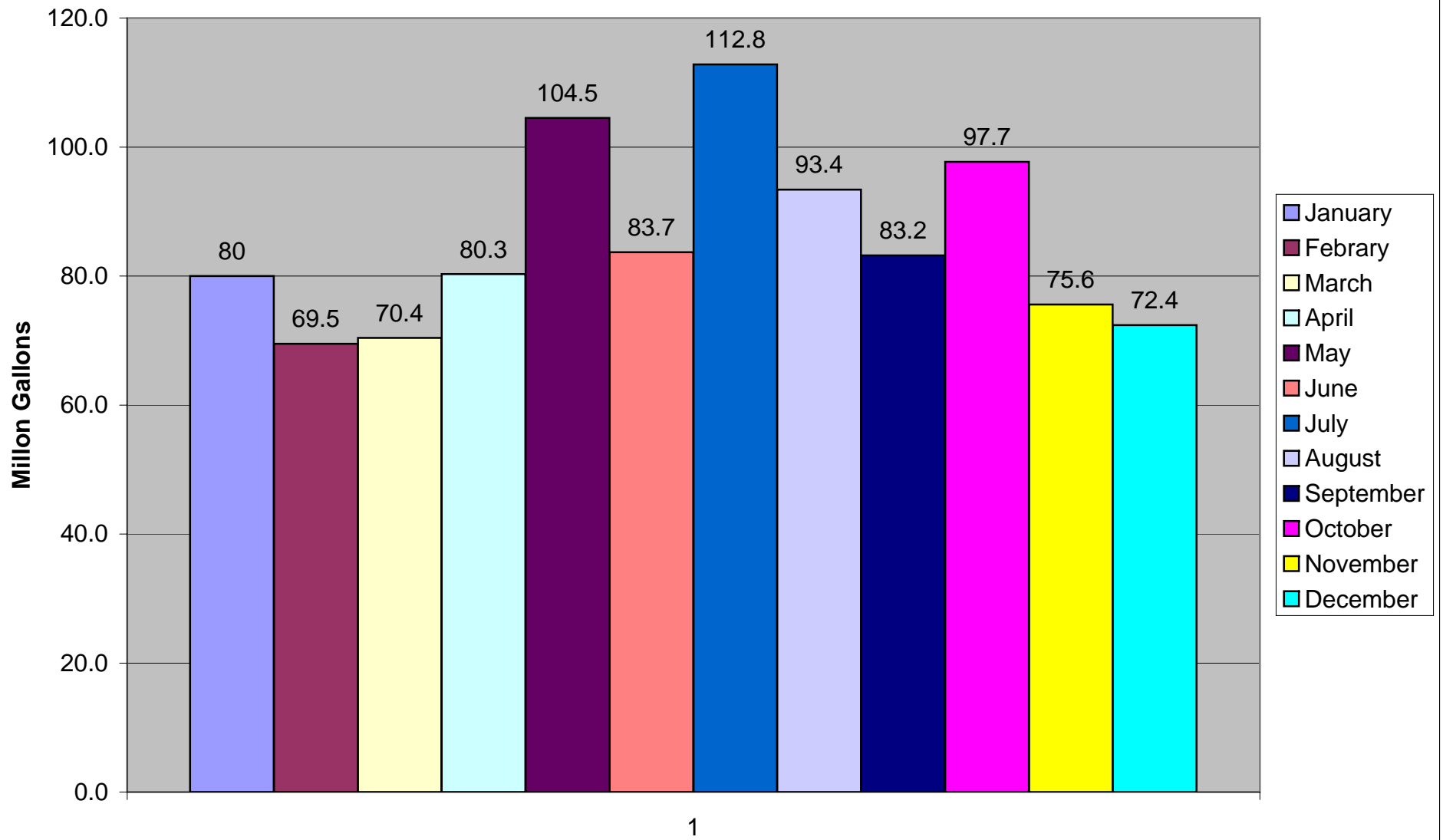
## WORKLOAD TRENDS

<b>YEAR</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
<b>WATER SUPPLY/DISTRIBUTION SYSTEMS</b>					
WATERMAIN/ SERVICE BREAKS	14	14	15	11	17
HYDRANT FLAGS INSTALLED/REPLACED	60	15	40	232	N/A
HYDRANTS PAINTED	24	63	85	132	N/A
HYDRANT/REPAIRS/REPLACED	26	42	60	8	5
VALVE OPERATING	488	279	377	174	119
VALVES REPAIRED/REPLACED	10	17	39/8	8	13
RESIDENTIAL METERS REPAIRED	73	AMR	25	37	46
RESIDENTIAL METERS REPLACED	60	AMR	202	116	204
NEW RESIDENTIAL METERS	20	18	35	91	137
COMMERICAL METERS REPAIRED	13	AMR	6	16	6
COMMERICAL METERS REPLACED	0	AMR	15	9	14
NEW COMMERICAL METERS	10	6	14	27	29
<b>PUMP STATION/WATER PUMPED (MG)</b>					
TOTAL WATER PUMPED FOR YEAR (MG)	1,023.86	1,113.69	1,196.63	1,225.95	1,317.19
MAXIMUM DAILY PUMPED (MG) (Date)	4.87 (6/20)	5.50 (6/4)	5.91 (7/8)	6.046 (7/06)	6.008 (7/6)
MINIMUM DAILY PUMPED (MG) (Date)	1.22 (1/1)	1.32 (12/24)	1.60 (12/25)	1.405 (11/23)	1.842 (9/3)
<b>SANITARY SEWER COLLECTION SYSTEM</b>					
SEWER CLEANING (MILES)	38.84	30.36	31.97	56.49	36.52
MONTHLY GREASE LINE MAINT. (MILES)	21.28	19.58	22.25	18.22	12.84
SEWER MAIN REPAIRS	0	0	0	0	1
MANHOLE/CB REPAIR (Sanitary/Storm)	30	26	19	26	29
ROOT CUTTING / CHEMICAL APPL. (FEET)	4552	14891	9640	8744	14122
SEWER BACKUPS	12	7	8	9	10
LOCATES	2096	2303	2603	2743	3441
WORK ORDERS	168	152	190	276	N/A
<b>STORMWATER COLLECTION SYSTEM</b>					
STORM SEWER CLEANED (MILES)	3.04				
CITY PONDS INSPECTED (EACH)	31				
PRIVATE PONDS INSPECTED (EACH)	8				

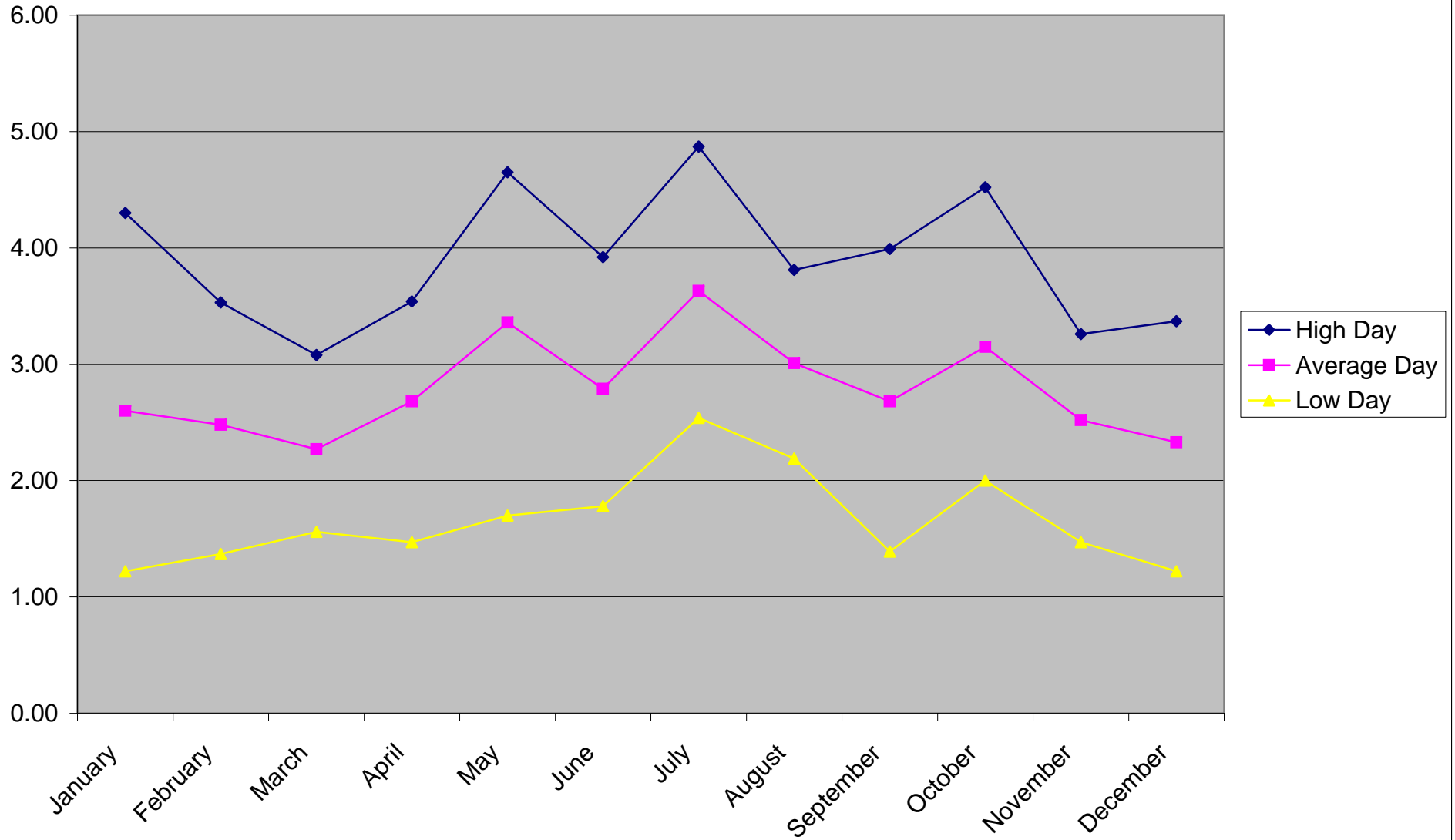
### 2000-2010 Pumping Totals



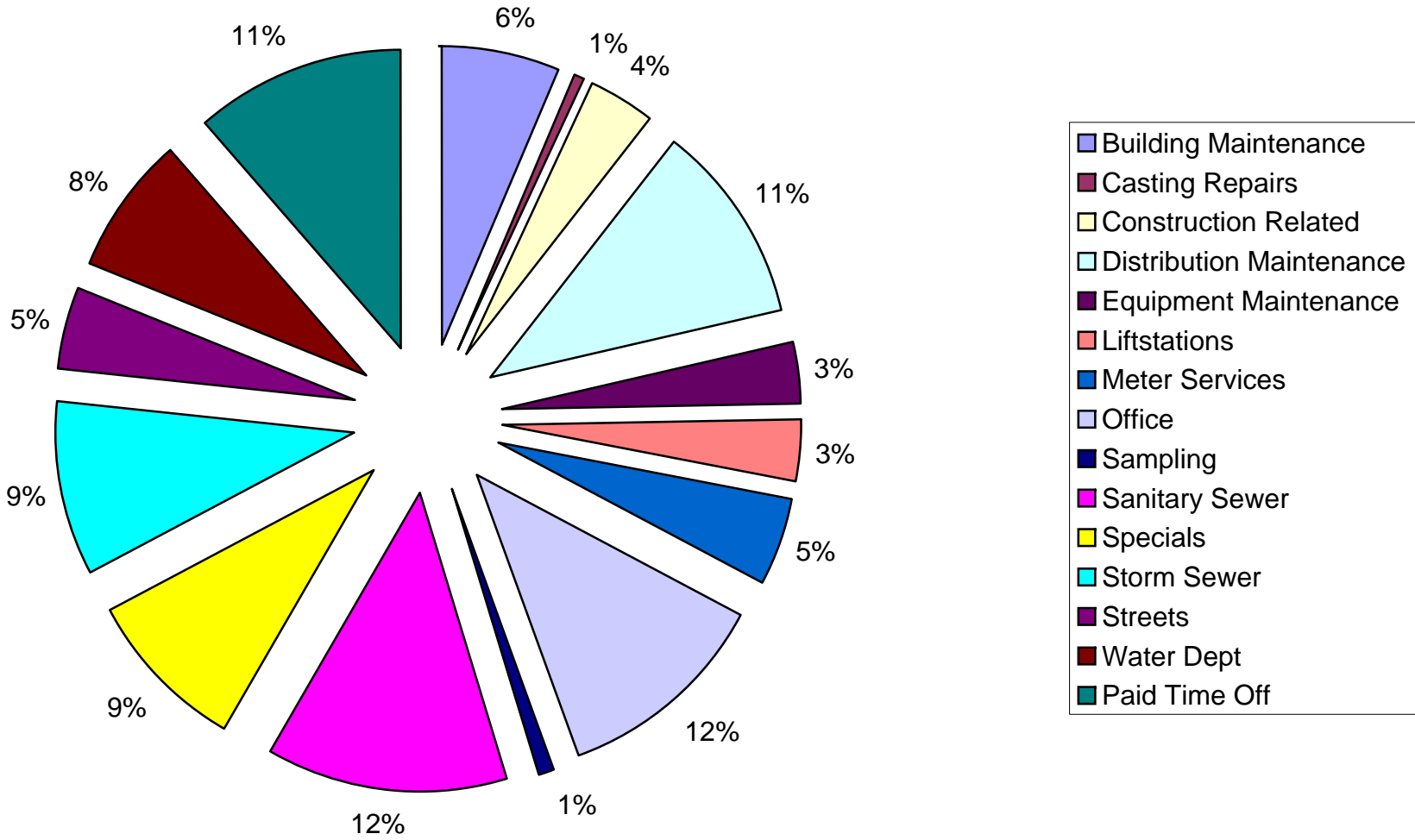
## 2010 Monthly Pumping



## 2010 Monthly Pumping Comparisons (Million Gallons)



### 2010 Work Categories (%) - Utilities Division



# Water Reclamation Facility 2010 Annual Report



Submitted by: Henry Morgan, WRF Superintendent

**PUBLIC WORKS/ENGINEERING DEPARTMENT  
City of Faribault**

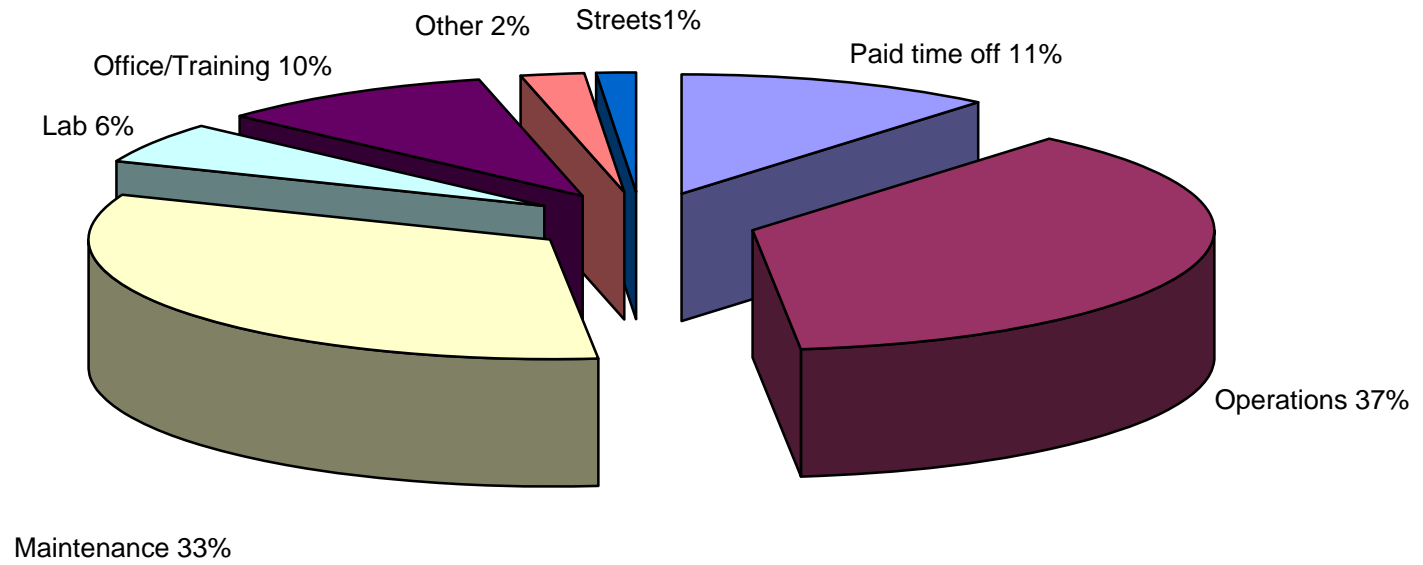
**WATER RECLAMATION FACILITY  
2010 Activities & Highlights**

- **Water Reclamation Facility Upgrade**
  - \$26M Project in Progress
  - Maintain Daily Plant Operations and Treatment
  - Construction Revisions and Coordination
  
- **Flood Damage Repairs**
  - September 23-24, 2010 Flooding
  - Facility Off-Line for 6-7 Days
  - System Bypass Pumping Operations
  - Major Electrical Repairs and Replacements
  
- **Wastewater Treatment**
  - 95.9% BOD (Biological Oxygen Demand) Removal
  - 91.5% TSS (Total Suspended Solids) Removal
  
- **Plant Loading Changes from 2009 to 2010**
  - Overall Flow: 17% Increase
  - Influent Phosphorus Loading: 85% Increase
  - Effluent Phosphorus Loading: No Change
  
- **Significant Industrial User Contracts**
  - Faribault Dairy (Swiss Valley)
  - Faribault Foods
  - Jennie-O Turkey
  - Minnesota Correctional Facility
  - Minnesota Municipal Power Agency
  
- **Employee Training and Certification**

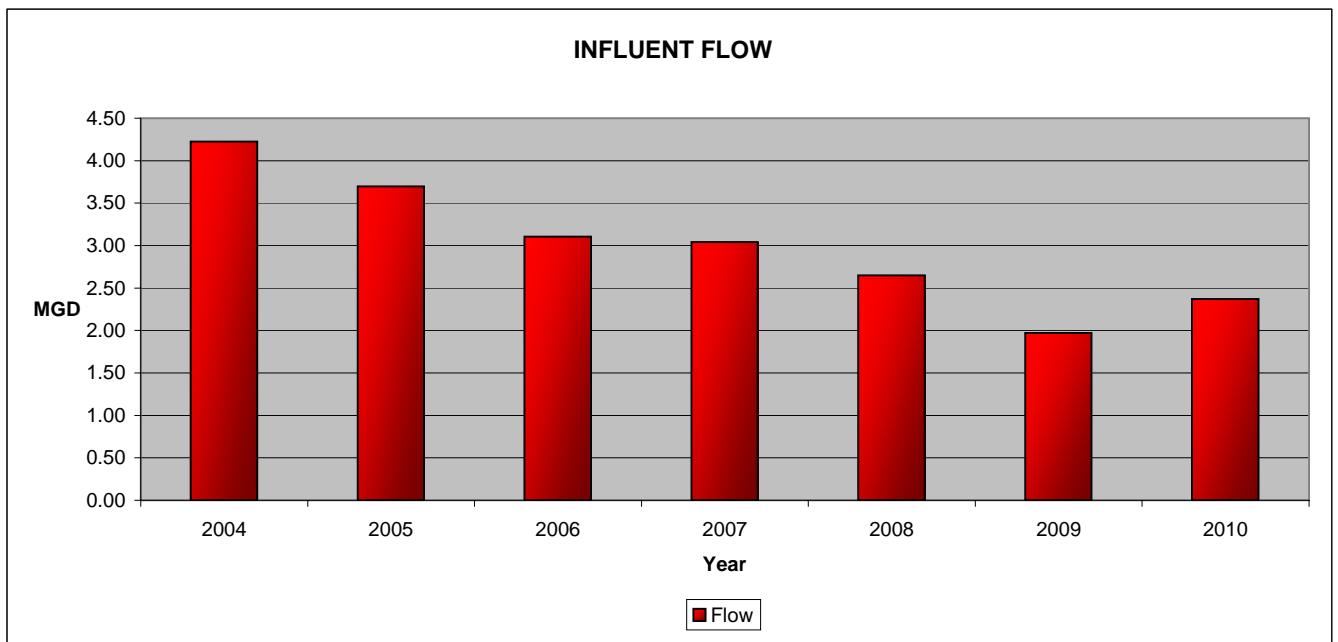
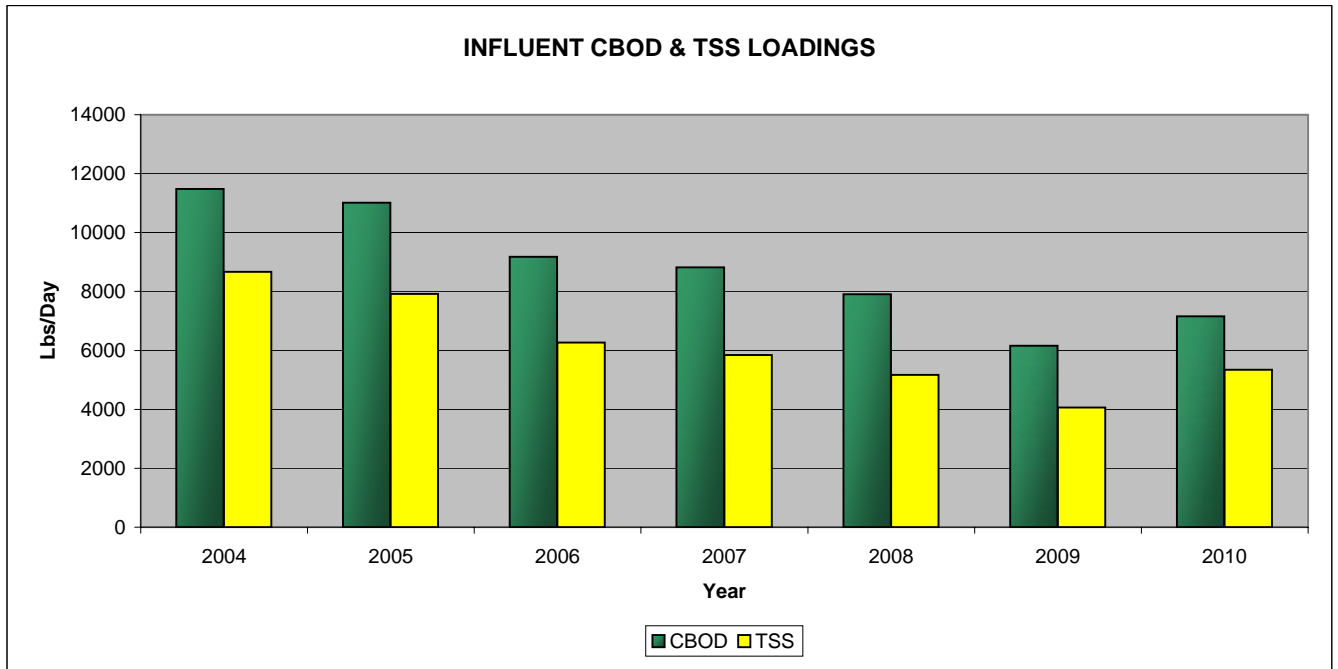
## 2010 Data - Water Reclamation Facility

	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	TOTALS	YR Ave	
Total Flow (MG)	57.4	48.1	88	65.1	61.4	72.3	73.6	75.7	55.7	89.1	91.3	68.6	846.3	70.5	
Max. Daily Flow (MG)	2.6	2.1	7.2	2.6	2.8	2.8	6.1	3.2	4.8	3.4	7.2	3	47.8	3.98	
Min. Daily Flow (MG)	1	0.9	1.7	1.3	1.1	1.5	1.3	1.3	1.4	1.6	1.6	1.3	16	1.33	
Ave. Daily Flow (MG)	1.9	1.7	2.8	2.2	2	2.4	2.4	2.4	2.5	2.9	3	2.2	28.40	2.37	
Max. Influent CBOD (mg/L)	880	1000	588	602	554	660	630	548	447	1930	466	506	8811	734	
Ave. Influent CBOD (mg/L)	461	492	289	356	424	373	376	377	323	357	332	276	4436	370	
Ave. Influent CBOD (lb/day)	7305	6976	6749	6532	7072	7466	7526	7546	6735	8634	8307	5064	85911	7159	
Max. Effluent CBOD (mg/L)	77	17	38	21	42	170	43	59	10	51	31	30	589	49	
Ave. Effluent CBOD (mg/L)	22	10	21	12	17	27	11	13	7	11	12	13	176	15	
Ave. Effluent CBOD (lb/day)	349	142	490	220	284	540	220	260	146	266	300	239	3456	288	
Ave. % removal	95.2%	98.0%	92.7%	96.6%	96.0%	92.8%	97.1%	96.6%	97.8%	96.9%	96.4%	95.3%		95.9%	
Max. Influent TSS (mg/L)	727	633	353	360	437	396	420	360	413	1580	412	393	6484	540	
Ave. Influent TSS (mg/L)	328	328	170	227	293	251	248	270	248	386	259	264	3272	273	
Ave. Influent TSS (lb/day)	5197	4650	3970	4165	4887	5024	4964	5404	5171	9336	6480	4844	64093	5341	
Max. Effluent TSS (mg/L)	120	22	64	35	80	393	16	35	16	95	67	37	980	81.7	
Ave. Effluent TSS (mg/L)	44	13	27	17	21	51	10	17	10	21	23	15	269	22	
Ave. Effluent TSS (lb/day)	697	184	631	312	350	1021	200	340	209	508	575	275	5303	442	
Ave. % removal	86.6%	96.0%	84.1%	92.5%	92.8%	79.7%	96.0%	93.7%	96.0%	94.6%	91.1%	94.3%		91.5%	
Chlorine Used (lbs)	N/A	N/A	N/A	(Data not available)								N/A	N/A	0	#DIV/0!
Sulfur Dioxide Used (lbs)	N/A	N/A	N/A	(Data not available)								N/A	N/A	0	#DIV/0!
Primary Sludge (gal)	348000	312960	360315	336040	344040	340480	319680	302400	254080	328515	319565	316285	3882360	323530	
Thickened Sludge (gal)	354775	456975	309220	374120	423725	353300	417776	480850	359050	225841	424350	363040	4543022	378585	

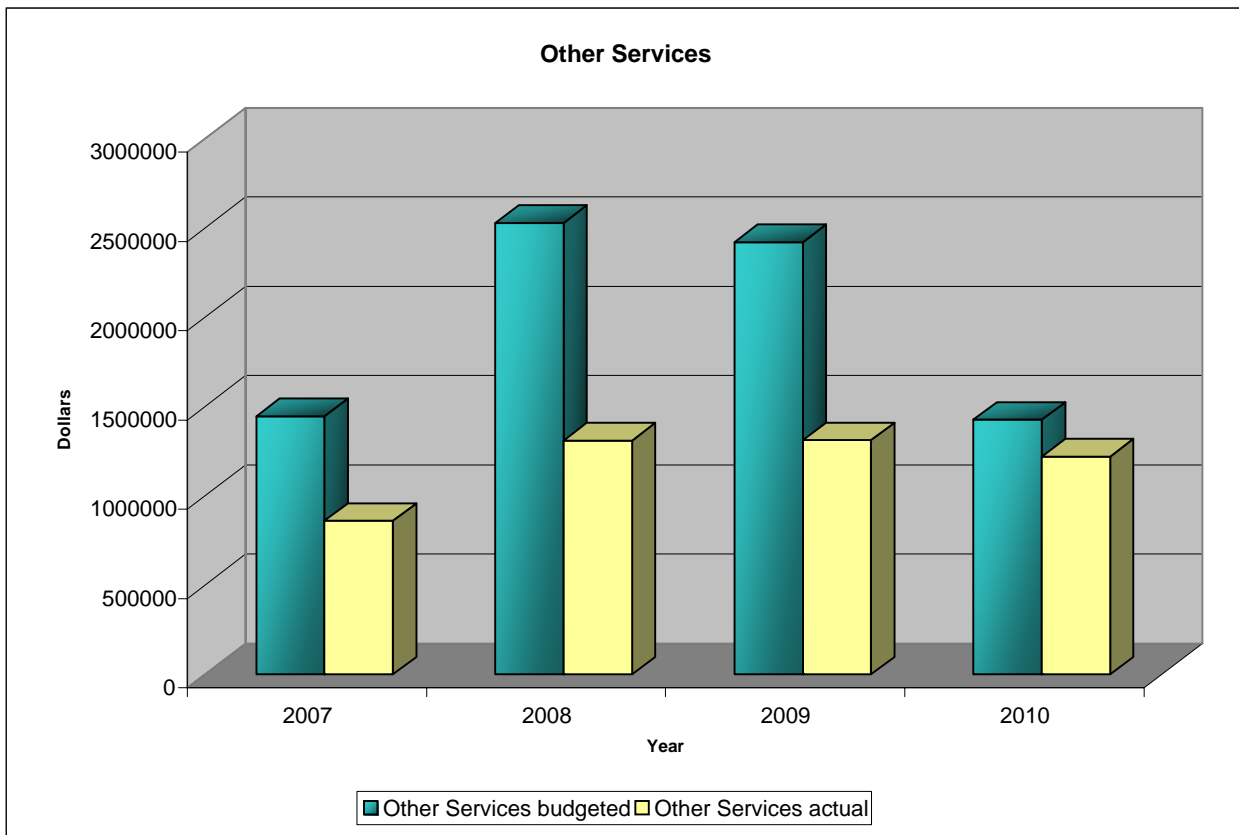
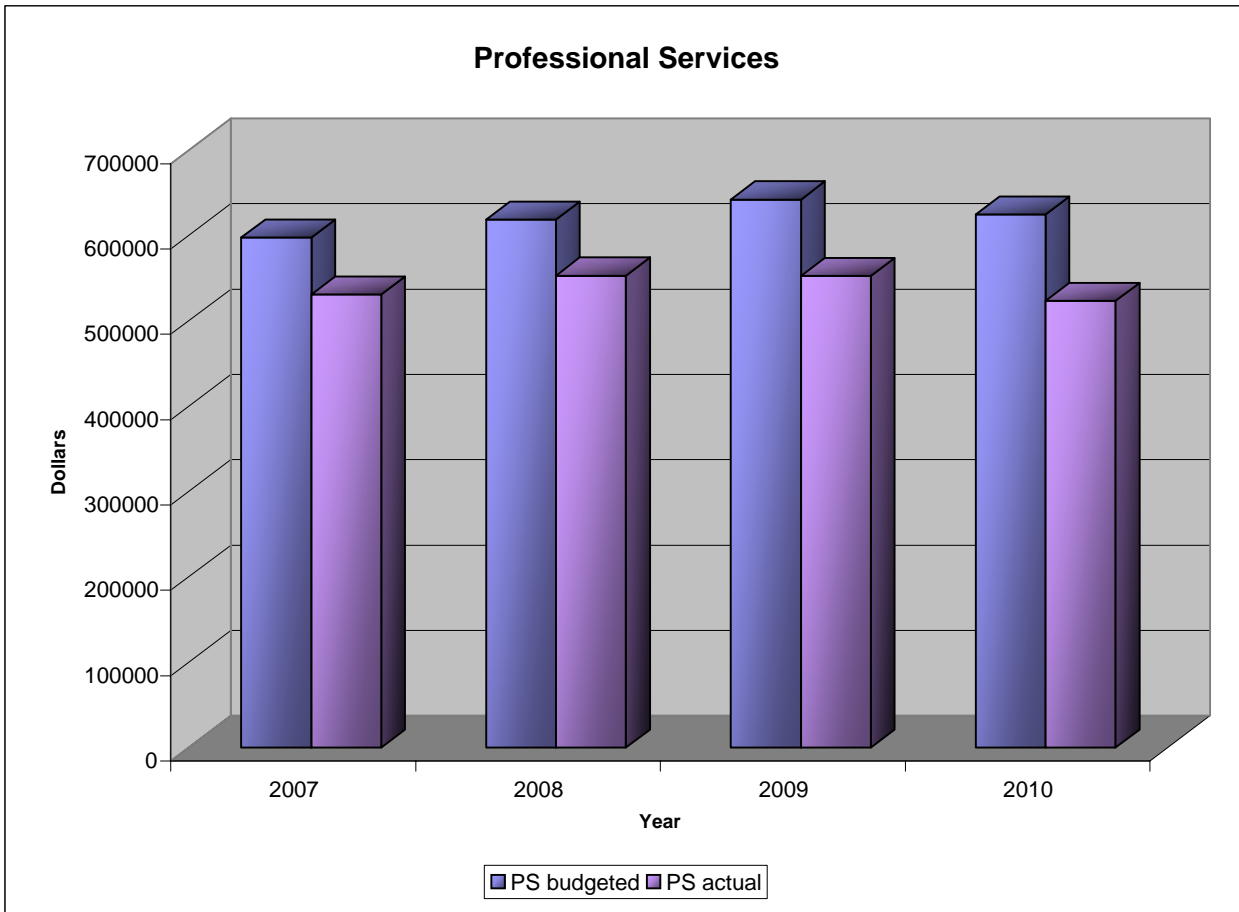
## 2010 Work Categories (%) - Water Reclamation Facility



## 2010 INFLUENT DATA - WATER RECLAMATION FACILITY

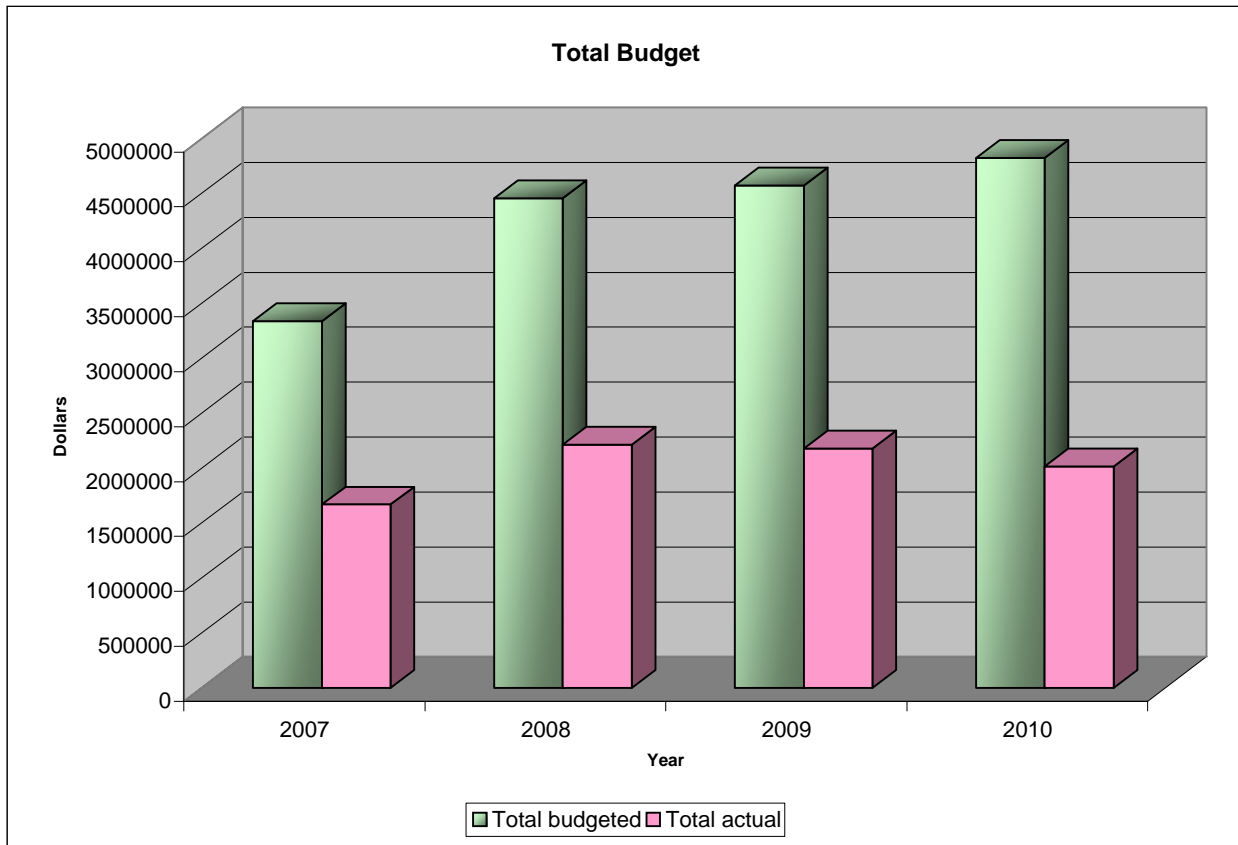
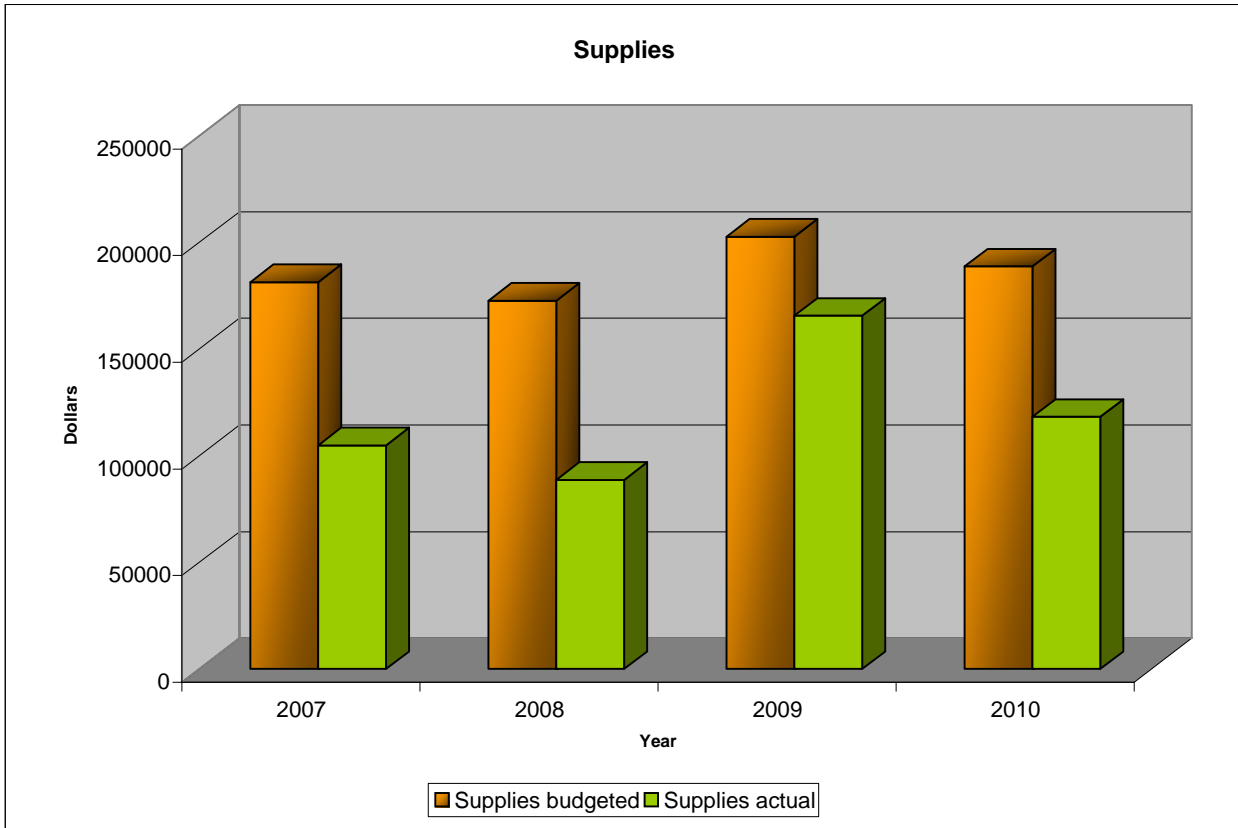


## 2007-2010 Budget Trends - Water Reclamation Facility



Total Budget Graph does not reflect \$14M WRF Construction Project budget amount for 2010

## 2007-2010 Budget Trends - Water Reclamation Facility



Total Budget Graph does not reflect \$14M WRF Construction Project budget amount for 2010

## 2010 Phosphorus Report

As required in the City of Faribault's Phosphorus Management plan, this report summarizes the actions the City of Faribault has taken to maintain the effluent total phosphorus discharge within the annual operational goal of 5.06 mg/L. The annual average for the Faribault Water Reclamation Facility (WRF) was 3.72 mg/L for 2010.

### Significant Industrial Users (SIUs)

Data for the SIUs is attached as a table labeled "SIU Overview"

Jennie-O Turkey Store. Jennie-O Turkey Store had about the same production in 2010 as in 2009. They saw a reduction in flow of 7% this year. They saw a 2.3% reduction in CBOD concentration. They also had a 24% reduction in total phosphorus. The ammonia levels also dropped by 14%. Their yearly average was 66 pounds per day of phosphorus (See SIU overview sheet attachment.)

Faribault Foods. In 2010, Faribault Foods had a 7% decrease in production. They had a 15% reduction in water usage. They had a decrease of 4% in total phosphorus concentration. Their average for 2010 was 34.4 pounds per day. (See SIU overview and Faribault Foods letter.)

Faribault Dairy, Inc. Faribault Dairy has seen a 42% increase in water usage in 2010. All of their loadings have also increased. This is due to increases in their cheese production. (See SIU overview and letter attached.)

Minnesota Correctional Facility (MCF). MCF has seen a 7% increase in water usage in 2010. They did see a decrease in phosphorus loading by 7%, down to 13 pounds per day. Their laundry and facility are phosphorus free. (See SIU overview and letter attached.)

Faribault Energy Park. Faribault Energy Park had a 36% increase in flow with no substantial increase in loadings.

### Additional Industries

The City of Faribault tested seven small industries quarterly that were identified in the Phosphorus Management Plan. All seven contributed less than 2 pounds per day.

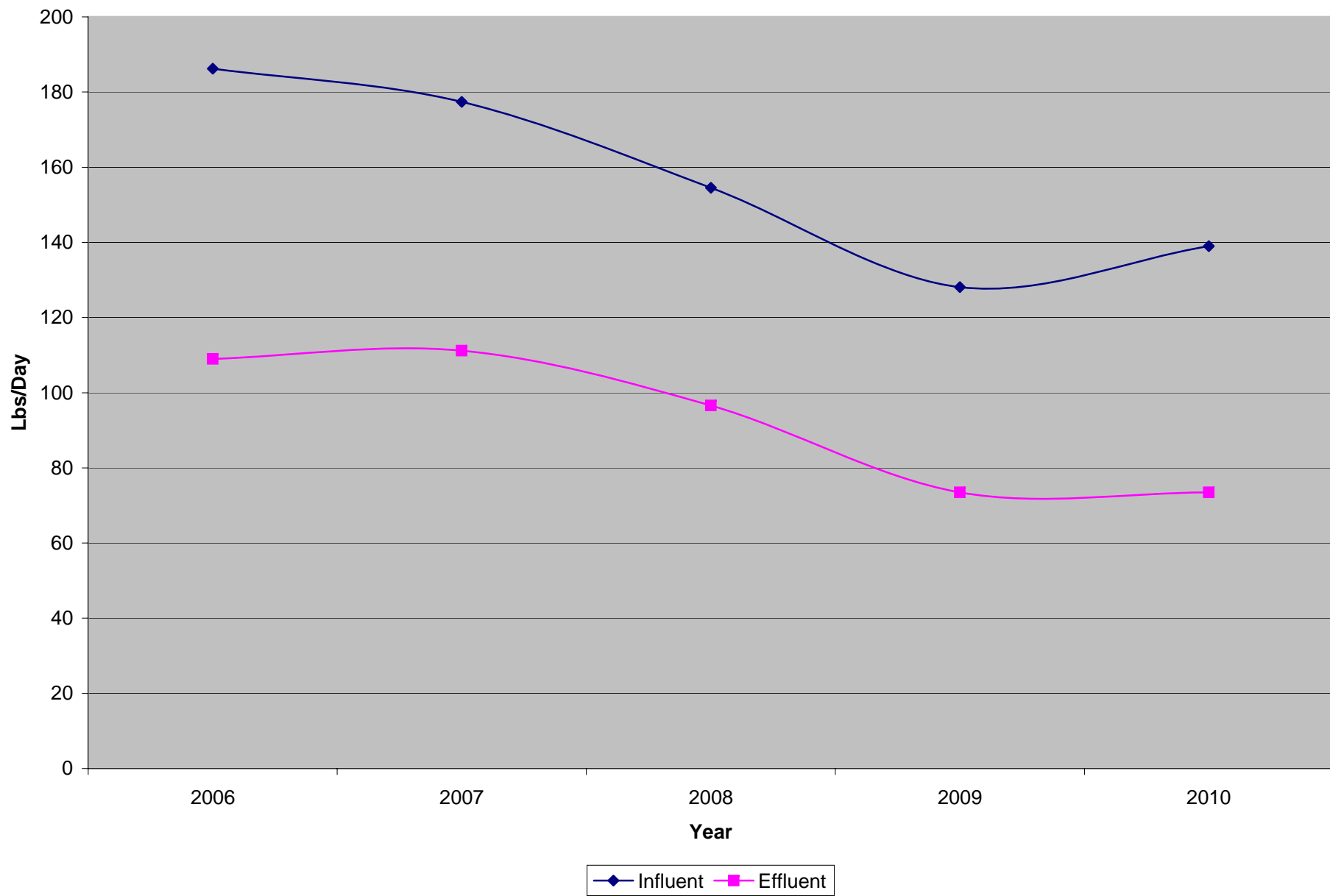
A summary of all industries tested during 2010 (Table A3) is attached.

### Summary

Influent phosphorus loadings in 2010 increased by 8.5% due to the 20% increase in flow. Effluent phosphorus remained steady at 73.5 pounds per day even with a 20% increase in flow.

If you have any questions or comments, please direct them to Henry Morgan, Wastewater Superintendent at 507-334-8696.

### Total Phosphorus (Lbs/Day) Loading - Water Reclamation Facility



### 2010 Phosphorus Loading - Water Reclamation Facility

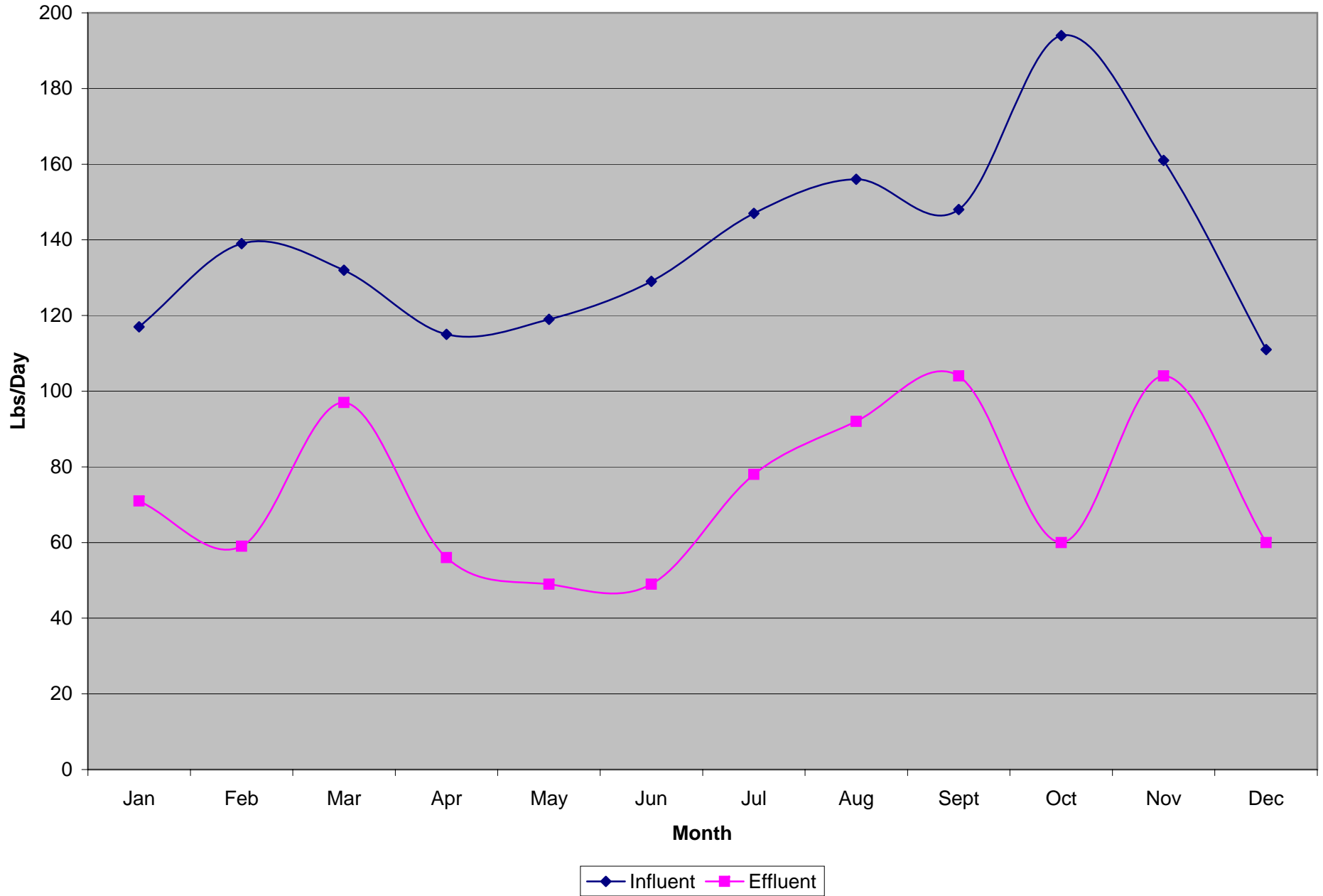


Table 1A: WRF Monthly Influent and Effluent Data

	<b>Year: 2010</b>					
	<b>Influent</b>			<b>Effluent</b>		
	<i>Month</i>	<i>Flow (MGD)</i>	<i>Concentration (mg/L)</i>	<i>Mass (lbs/day)</i>	<i>Flow (MGD)</i>	<i>Concentration (mg/L)</i>
<i>Jan</i>	1.85	7.60	117.0	1.85	4.60	71.0
<i>Feb</i>	1.72	9.70	139.0	1.72	4.20	59.0
<i>Mar</i>	2.84	5.58	132.0	2.84	4.10	97.0
<i>Apr</i>	2.17	6.34	115.0	2.17	3.09	56.0
<i>May</i>	1.98	7.20	119.0	1.98	2.94	49.0
<i>Jun</i>	2.41	6.41	129.0	2.41	2.45	49.0
<i>Jul</i>	2.37	7.42	147.0	2.37	3.97	78.0
<i>Aug</i>	2.44	7.69	156.0	2.44	4.51	92.0
<i>Sep</i>	2.53	7.00	148.0	2.53	4.94	104.0
<i>Oct</i>	2.87	8.10	194.0	2.87	2.49	60.0
<i>Nov</i>	3.04	6.35	161.0	3.04	4.10	104.0
<i>Dec</i>	2.21	6.00	110.6	2.21	3.26	60.1
<b>Annual Avg</b>	<b>2.37</b>	<b>7.12</b>	<b>139.0</b>	<b>2.37</b>	<b>3.72</b>	<b>73.3</b>

**Table 3A: Summary of Businesses Contributing Phosphorus**

<b>Year: 2010</b>	<b>Walk-through inventory</b>	<b>Sampling results</b>				<b>Assessment</b>
<b>Businesses (Industrial, Commercial, and Institutional)</b>	<b>Phosphorus sources</b>	<b>Grab (G) or Composite (C) Manhole # if applies</b>	<b>Flow (MGD)</b>	<b>Phosphorus (mg/L)</b>	<b>Total mass load (ppd)</b>	<b>Reduction potential high, medium, low</b>
TURKEY STORE	TURKEY PRODUCTION	COMPOSITE	0.61	12.9	66	MEDIUM
FARIBAULT FOODS	BEAN PRODUCTION	COMPOSITE	0.3312	8.45	23	MEDIUM
FARIBAULT DAIRY	CHEESE PRODUCTION	COMPOSITE	0.0046	122	4.7	HIGH
MN CORR. FACILITY	POLY PHOSPHATE - WATER	COMPOSITE	0.261	6	14	MEDIUM
F.E.P.	INVENTORY IN 2008	COMPOSITE	0.034	1.03	0.3	NO
P.E.	22,000 POPULATION	NA	NA	NA	106	NO
K BAR	INVENTORY IN 2006	COMPOSITE	0.006	3.8	0.2	LOW
MERCURY MN	INVENTORY IN 2006	COMPOSITE	0.004	37.6	1.3	LOW
SELLNERS	INVENTORY IN 2006	COMPOSITE	0.00002	64.8	0	LOW
McQUAY	INVENTORY IN 2006	COMPOSITE	0.003	16.3	0.4	LOW
HARRY BROWNS	INVENTORY IN 2006	COMPOSITE	0.008	1.4	0.1	LOW
ABC BUS	INVENTORY IN 2006	COMPOSITE	0.0009	6.9	0.5	LOW
GENOVA	INVENTORY IN 2006	COMPOSITE	0.0012	11.7	0.1	LOW

## SIU (Significant Industrial User) Overview

<b>Faribault Dairy</b>	2006	2007	2008	2009	2010	Reduction	Increase
Flow	4,316	3,469	3,355	3,229	4,587		42.0%
CBOD	563	445	509	300	370		23.0%
TSS	66	38	25	20	26		30.0%
Total Phos.	10	7	7	6	7.75		13.0%
NH3	1	1	1	1	1		

<b>Faribault Energy Park</b>	2006	2007	2008	2009		Reduction	Increase
Flow			47,000	25,000	34,000		36.0%
CBOD			2	1	1		0.0%
TSS			3.7	1.5	2		33.0%
Total Phos.			0.3	0	0.3		0.0%
NH3			0.2	0	0		0.0%

<b>Faribault Foods</b>	2006	2007	2008	2009		Reduction	Increase
Flow	655,000	626,000	464,000	392,500	331,000	15.6%	
CBOD	5,290	4,505	3,317	3,733	3,430	8.0%	
TSS	2,653	1,474	1,284	1,349	1,764		23.5%
Total Phos.	51	39	33	36	23	36.0%	
NH3	12	30	35	14	25		79.0%

<b>Jennie-O Turkey Store</b>	2006	2007	2008	2009		Reduction	Increase
Flow	0.793	0.699	0.708	0.657	610,000	7.0%	
CBOD	3,306	4,092	4,801	3,252	3,163	2.7%	
TSS	514	588	502	501	587		17.0%
Total Phos.	78	83	101	87	66	24.0%	
NH3	60	65	102	66	57	14.0%	

<b>Minnesota Correctional Facility</b>	2006	2007	2008	2009		Reduction	Increase
Flow	205,000	203,000	208,000	254,000	261,000		2.7%
CBOD	502	506	845	600	662		10.3%
TSS	431	475	487	483	535		10.0%
Total Phos.	14	11	11	14	13	7.0%	
NH3	26	26	29	44	42	4.5%	

# Engineering Division 2010 Annual Report



Submitted by: Glenn Cunningham, Engineering Supervisor

**PUBLIC WORKS/ENGINEERING DEPARTMENT**  
**City of Faribault**

**ENGINEERING DIVISION**  
**2010 Activities & Highlights**

**2010 CONSTRUCTION HIGHLIGHTS**

- **Western Avenue Construction**

This project was the final of three segments to be constructed for a main northwest area roadway, which started back in 2003. The first part, on the southern end, was Western Avenue from 7<sup>th</sup> Street NW to approximately 400' north of 17<sup>th</sup> Street NW. The northerly portion, 30<sup>th</sup> Street NW from Western Avenue to T.H. 21, was built in 2005 as part of The Village subdivision. This project provided the connection between the two. A large portion of the property west of the road is a protected wetland, and right-of-way and grading limitations created unique challenges with the horizontal alignment design. The project included a bituminous walkway, completing a main pedestrian link as well.

- **2010 Street Overlay and Sidewalk Improvements**

The City constructed bituminous overlays on several heavily-traveled streets to extend the life of the existing pavements. These included Prairie Avenue, 7<sup>th</sup> Street N.W. and 7<sup>th</sup> Avenue N.W., and also had some curb replacement and minor storm sewer repairs. New concrete sidewalks were installed on Shumway Avenue from SSM Sports Complex to Legacy Golf Course entry, on 7<sup>th</sup> Street N.W. from Lincoln Avenue to the railroad trestle bridge, and on 7<sup>th</sup> Avenue N.W. from 9<sup>th</sup> Street N.W. to South Alexander Park.

- **Parkland Village**

The subdivision was started in 2006 and was at the tail end of a rather aggressive development era that fell claim to an economic collapse in the housing market. After many attempts to get the Developer to complete the project, the City negotiated an agreement with the Bonding Company to complete the majority of the remaining work under a private contract. This work included a secondary access to the area from Belview Trail.

- **Emergency Sanitary Sewer Replacements**

A main portion of the sanitary sewer collection system near the Water Reclamation Facility was destroyed by the flooding in September of 2010. It was a daunting effort to first regain control of the system, and second to then formulate and implement a plan to maintain sewer service until the system could be rebuilt. In less than eight weeks the remnants of the old system were removed and a single new and improved river crossing, along with adjoining interceptor sewers, was constructed and fully operational.

## **2010 CONTRACTS SUMMARY**

The total value of construction work completed in 2010 was **\$4,245,259.71**. This amount is a combination of carry-over work from prior years, along with 11 public contracts, 1 cooperative contract (Rice County), and 1 private contract let in 2010. Following is a summary of the construction amounts for the individual projects. The estimated carry-over amount for 2010 contracts into 2011 is not included in the total amount of work for 2010.

<b><u>Prior Year Contracts</u></b>	<b><u>2010 Work Amount</u></b>
2009-04, Downtown Area Improvements Pember Companies, Menomonie, WI.....	\$ 128,238.62
Private, Parkland Village Subdivision BCM Construction, Faribault, MN.....	\$ <u>240,478.25</u>
<b>Total - Carryover Projects</b>	<b>\$ 368,716.87</b>
<b><u>2010 Contracts - Completed</u></b>	<b><u>Final Contract</u></b>
2010-01 Miscellaneous Concrete Kaiser Concrete, Faribault, MN.....	\$ 37,020.43
2010-02, 2010 Hydrant & Valve Replacement Selly Excavating, Inc., Le Center, MN.....	\$ 42,616.50
2010-03, Western Avenue Improvements Heselton Construction, Faribault, MN.....	\$ 479,066.10
2010-05, 2010 Overlays/Sidewalks Bituminous Materials, Inc., Faribault, MN.....	\$ 966,644.08
2010-08, Misc. Storm Sewer Improvements Selly Excavating, Inc., Le Center, MN.....	\$ 38,024.39
2010-10, St. Paul Avenue Watermain BCM Construction, Inc., Faribault, MN.....	\$ 132,747.32
2010-City, 1 <sup>st</sup> Avenue N.E. Service Work Selly Excavating, Inc., Le Center, MN.....	\$ 5,663.00
Emergency Sewer Contract #1 BCM Construction, Inc., Faribault, MN.....	\$ 115,950.00
Emergency Sewer Contract #2 Ellingson Companies, Inc., West Concord, MN.....	\$ 513,156.70
2010-RC CSAH 11 Bridge Replacement BCM Construction, Inc., Faribault, MN.....	\$ <u>139,244.80</u> (Utilities)
<b>Total - 2010 Contracts Completed</b>	<b>\$2,470,133.32</b>

<u>Work in Progress</u>	<u>2010 Amount</u>	<u>2011 Estimate</u>
2010-04, 2010 Street Reconstruction Heselton Construction, Faribault, MN.....	\$ 785,140.29	\$ 47,921.24
2010-07, Northern Sewer Interceptor Heselton Construction, Faribault, MN.....	\$ 232,456.20	\$ 555,309.26
Emergency Sewer Contract #3 BCM Construction, Inc., Faribault, MN.....	\$ 190,104.27	\$ 1,016.05
2010-Private Lyndale Commons Subdivision Heselton Construction, Faribault, MN.....	<u>\$ 225,920.25</u>	<u>\$ 19,484.00</u>
<b>Total – Contracts in Progress</b>	<b>\$ 1,422,325.00</b>	<b>\$ 623,730.55</b>

### Construction Cost Summary

Total - Carryover Projects	\$ 368,716.87
Total - 2010 Contracts Completed	\$ 2,470,133.32
Total - Contracts in Progress	<u>\$ 1,422,325.00</u>
<b>Total Work Completed in 2010</b>	<b>\$4,261,175.19</b>

The program for 2010 represents a below average construction year delivered by the Engineering Division. This is very understandable, as past years included significantly more work done as part of subdivision development, and that type of work accounted for less than 10% of this year's total. There is a very limited amount of carryover work, which is favorable as we look to undertake the 2011 capital improvements program, which includes several large projects. Following are the past ten years of construction work completed.

<b>2010</b>	<b>\$ 4,261,175.19</b>	2005	\$ 8,953,148.83
2009	\$ 4,746,954.13	2004	\$ 6,065,570.71
2008	\$11,457,752.94	2003	\$ 4,293,271.71
2007	\$ 3,003,421.88	2002	\$ 5,161,466.46
2006	\$ 6,128,177.01	2001	\$ 4,760,626.08
(Ten year average = \$5,430,708.60)			

### 2010 WORKLOAD DATA

<u>Street Improvements</u>			
Construction	550 LF	0.10 MI	
Reconstruction	6,938 LF	1.31 MI	
Overlay	<u>13,942 LF</u>	<u>2.64 MI</u>	
<b>2010 Totals</b>	<b>21,430 LF</b>	<b>4.05 MI</b>	
<i>2009 Totals</i>	<i>9,267 LF</i>	<i>1.76 MI</i>	

**Sanitary Sewer**

Construction	334 LF	0.06 MI
Replacement	<u>8,472 LF</u>	<u>1.67 MI</u>
<b>2010 Totals</b>	<b>8,806 LF</b>	<b>1.73 MI</b>
<i>2009 Totals</i>	<i>6,874 LF</i>	<i>1.30 MI</i>

**Watermain**

Construction	375 LF	0.07 MI
Replacement	<u>5,816 LF</u>	<u>1.10 MI</u>
<b>2010 Totals</b>	<b>6,191 LF</b>	<b>1.17 MI</b>
<i>2009 Totals</i>	<i>4,500 LF</i>	<i>0.85 MI</i>

**Storm Sewer**

Construction	44 LF	0.01 MI
Replacement	<u>2,246 LF</u>	<u>0.42 MI</u>
<b>2010 Totals</b>	<b>2,290 LF</b>	<b>0.43 MI</b>
<i>2009 Totals</i>	<i>2,570 LF</i>	<i>0.48 MI</i>