



CITY OF WILLMAR 2007 ANNUAL REPORT



City Attorney
City Clerk-Treasurer
Community Ed & Recreation
Cultural Liaison
Finance
Fire
Planning & Development Services
Police
Public Works

PUBLIC WORKS/SAFETY COMMITTEE

Members:

ChairmanDoug Reese

Vice Chairman.....Ron Christianson

Member.....Bruce DeBlieck

Member.....Cindy Swenson

ENGINEERING PERSONNEL

Staff:

Public Works Director/City EngineerMelvin Odens

Assistant City EngineerBrian Bollig (resigned 7-13-07)

Records/Construction Manager.....Tom O'Malley (retired 9-6-07)

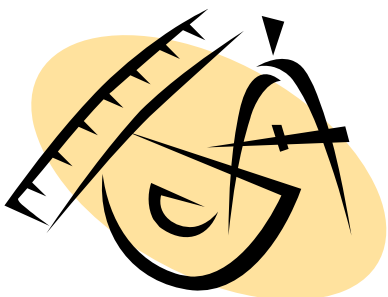
.....Lynden Wittman (promoted 9-7-07)

TechniciansKris VanDyke

.....Lynden Wittman

.....Darrell Hoekstra (hired 11-21-07)

Clerical.....Janell Sommers





Left to right: Brian Bollig, Mel Odens, Janell Sommers, Tom O'Malley, Kris VanDyke, and Lynden Wittman.

The Engineering Department has traditionally been known for street construction and reconstruction. As the City grows and regulations change, staff often finds itself assisting in other ways. This report will mostly give statistical data on street and related work in table form, with other work identified in narrative form.

Total length of streets reconstructed was 1.10 miles, new construction was 1.96 miles, and streets overlaid were 1.70 miles. Other street-related projects were street lighting and seal coat. Total construction dollars staff oversaw in 2007 was \$6.2 million dollars. This compares to \$5.1 million dollars in 2006, \$5.6 million in 2005, \$3.5 million in 2004, \$2.7 million in 2003, and \$2.2 million in 2002.

In addition to construction projects, staff also has the responsibility for building plan reviews, excavation permits, plat reviews, cost estimates for many projects, "Gopher One" locates (2,005), public walk-in assistance, Water View Business Park Development, Robbins Island Path Overlay, soccer field lighting, and local option sales tax projects:

1.) CC/BLC connection 2.) Civic Center walk path 3.) Industrial Park Redevelopment, and 4.) County Road 47.

Things that were added/changed this year are: 1.) Storm water regulations City's MS4 Permit approved and Storm Water Pollution Prevention Program developed, 2.) City Engineers Association of Minnesota (CEAM) – Elected Vice-President, 4.) Wastewater Treatment Relocation Project – 95% Design Complete.

Some notable projects that occurred this past year are: 1.) Construction of Phase II of the WWTP Interceptor Project (mall section), 2.) Completion of the Civic Center/Blue Line Center Connection Project, and 3.) Industrial Park expansion – County Road 47 and Willmar Avenue Extension.

The southeast area of Willmar saw the continuation of construction activity that began in 2006. The installation of a signal system at 19th Avenue SE and 5th Street, reconstruction of 19th Avenue SE, along with street construction in Waterview Business Park, made the opening of the new Super Wal-mart in September possible.



Signal System at 19th Avenue and 5th Street



Looking west on 19th Avenue SE

ENGINEERING SUMMARY FOR YEAR 2007:

The year 2007 saw staff within the Engineering Department oversee \$6.2 million dollars worth of street-related projects. Local street construction/reconstruction was in the following areas:

Reconstruction

17th Avenue SW – Cul-de-sac east of 6th Street SW
6th Street SW – 17th Avenue SW to 19th Avenue SW
10th Street NE – High Avenue to Business 71
3rd Street SE – 11th Avenue SE to Minnesota Avenue SE
19th Avenue SE – 5th Street SE to 9th Street SE
9th Street SE – 19th Avenue SE to 400 feet south

Overlay

19th Avenue SE – 1st Street to 5th Street SE
19th Avenue SE – 9th Street SE to Lakeland Drive SE
Country Club Drive NE – Cul-de-sac to 26th Avenue NE

Underground Utility Work

County Road 47

New Construction

24th Avenue SE – From 600' east of 1st Street to 9th Street SE (DBI development)
9th Street SE – 20th Avenue to 24th Avenue SE (DBI Development)
19th Avenue SE – West of 5th Street to East of 5th Street SE (DBI development)

Street Lighting

Waterview Business Park
15th Avenue SW ?????
Soccer Field Lighting

Miscellaneous

Airport Hangar Site Demolition
Seal Coat
Civic Center Drive Concrete Path
Robbins Island Walk Path - Overlay

2007 Construction Summary:

<u>Project No.</u>	<u>Type of Work</u>	<u>Length (Miles)</u>	<u>Cost</u>
0701	Street Improvements	1.92	\$1,123,729.91
0702	Cty Rd 47 Water/Storm Sewer	NA	\$1,502,093.50
0703	Waterview Business Park Streets	1.22	\$1,444,205.40
0704	19 th Avenue SE Reconstruction	0.35	\$853,297.22
0706	Waterview Business Park Lighting	NA	\$82,570.00
0708	Seal Coat	2.06	\$33,954.00
0710	Willmar Avenue SW	0.36	\$422,739.67
0712	Civic Center Drive Concrete Path	1.07	\$60,187.85
0713	WWTF Interim Modifications	NA	\$148,100.00
0714	Soccer Field Lighting	NA	\$41,102.58
0715	Southern Interceptor Phase II	NA	\$461,500.53
Quote	Robbins Island Path Overlay	0.68	\$32,977.05
Quote	Airport Hangar Site Demolition	NA	\$11,105.75
<u>TOTAL</u>			<u>\$6,217,563.46</u>

CRITICAL RATING RESULTS

City streets are rated periodically to determine their condition. The ratings are done on a scale of 0 to 100. The streets and various data related to each street have all been entered into the computer.

STREET WORK HISTORY

<i><u>Year</u></i>	<i><u>Reconstruction</u></i>	<i><u>New Construction</u></i>	<i><u>Overlay</u></i>	<i><u>Seal Coat</u></i>
1991	3.17	1.62	.5	3.5
1992	2.02	1.04	0	4.9
1993	1.37	0.73	0	0
1994	1.86	0.51	.27	0
1995	1.15	0.11	1.07	3
1996	2.02	0.11	1.55	0
1997	0.63	0.81	1.01	5.88
1998	2.83	0.30	0.26	0.00
1999	0.97	0.61	0	3.48
2000	0.35	0.08	2.89	0
2001	1.34	0.14	0.85	3.84
2002	0.00	1.18	0.39	0.00
2003	0.83	0.25	1.55	2.9
2004	1.74	1.48	0.78	0.0
2005	1.49	2.81	1.06	0.79
2006	1.25	1.62	1.70	0.0
2007	1.10	1.96	1.7	2.06
Average	1.42	0.90	0.92	1.60

Several seasonal employees are hired during the summer and fall to help with construction inspection, street and sidewalk inspection, traffic counts, and surveying. Many are college students who work during their summer break. Seasonal personnel are generally paid from project budgets.

STREET MILEAGE

<i><u>Type</u></i>	<i><u>Miles</u></i>
Trunk Highways	8.90
Trunk Highways Turnbacks (Designated as MSAS)	5.60
County State Aid Highways	13.38
Municipal State Aid Streets	19.15
County Roads	0.93
Other Local Roads and Streets – not designated (Include T.H. & CSAH frontage roads)	82.71
2007 TOTAL:	130.67

2006 Total = 129.55 2005 Total = 127.85 2004 Total = 125.24 2003 Total = 123.76
 2002 Total = 123.06

SUMP PUMP LINES:

The installation of sump pump tile lines in conjunction with street construction/reconstruction was initiated in 1993. Below are the costs and length for the installation per year:

<u><i>YEAR</i></u>	<u><i>AMOUNT</i></u>	<u><i>FEET</i></u>
1993-1994	\$ 75,536	9,925
1995	91,090	12,970
1996	111,148	19,042
1997	39,792	7,176
1998	79,980	13,092
1999	21,576	3,959
2000	0	0
2001	33,860	5,514
2002	15,815	2,433
2003	17,778	1,997
2004	51,417	6,618
2005	101,639	11,283
2006	53,904	7,384
2007	6,946	943

SANITARY SEWER COLLECTION SYSTEM:

SEWERS: Gravity Lines: Life Expectancy 80 years

<i>Diameter</i>	<i>Length (miles)</i>
4"	0.31
6"	0.47
8"	64.25
10"	12.03
12"	5.64
15"	3.62
18"	3.27
21"	0.84
24"	0.94
27"	0.80

30"	0.55
36"	0.21
42"	0.01
48"	0.93
<i>TOTAL:</i>	<i>93.87</i>

FORCE MAINS: Life Expectancy 80 years

<i>Diameter</i>	<i>Length (miles)</i>
4"	0.37
6"	3.65
8"	0.72
10"	0.74
24"	3.11
<i>TOTAL:</i>	<i>8.59</i>

MANHOLES: Life Expectancy 80 years

Total Manholes approximately 1,800

LIFT STATIONS: Life Expectancy 50 years

Total Lift Stations 25
City Limits: 16
Eagle Lake: 9

<u>Construction Dates</u>	<u>Length (miles)</u>
1900-1940	15.79
1940-1950	5.3
1950-1960	13.84
1960-1970	13.17
1970-1980	18.27
1980-1990	14.74
1990-1995	6.5
1995-2000	2.82
2000-2002	2.34
2002-2003	.41
2003-2004	.99
2004-2005	2.25
2005-2006	.56
2006-2007	.41

Cost per year to replace system (2000 Dollars)

\$216,825

Note: The sanitary sewer trunk lines are being considered for replacement or rerouting because several are nearing capacity. Trunk lines are the largest lines and are significantly higher in cost than normal residential lines.

STORM SEWER SYSTEM:

STORM SEWER MAINS: Life Expectancy 80 years

<i>Diameter</i>	<i>Length (miles)</i>
6"	0.20
8"	1.85
10"	1.29
12"	15.57
15"	9.30
18"	6.03
21"	2.34
24"	6.58
27"	1.41
30"	2.54
33"	0.85
35"	0.13
36"	3.34
39"	0.39
42"	2.41
48"	1.72
54"	1.24
60"	0.10
72"	0.53
3' X 4' box	0.41
4' x 8' box	.03
7' x 14' box	.03
9' x 10' box	.01
10' x 16' box	.05
123" x 81" arch	0.28
138" x 87" arch	0.30
142" x 91" arch	0.13
29" x 18" arch	0.08
122" x 78" arch	0.06
<i>TOTAL:</i>	<i>59.20</i>

<u>Construction Dates</u>	<u>Length (miles)</u>
900-1940	8.16
1940-1950	2.60
1950-1960	7.86
1960-1970	4.51
1970-1980	11.12
1980-1990	8.59
1990-1995	7.81
1995-2000	2.43
2000-2002	0.97
2002-2004	1.4
2004-2005	1.96
2005-2006	0.49
2006-2007	1.67

WATER DISTRIBUTION SYSTEM:

WATER MAINS: Life Expectancy 80 years

<i>Diameter</i>	<i>Length (miles)</i>
2"	0.17
4"	9.82
6"	23.11
8"	47.54
10"	7.47
12"	21.81
16"	4.24
<i>TOTAL:</i>	<i>114.16</i>

<u>Construction Dates</u>	<u>Length (miles)</u>
1900-1940	10.41
1940-1950	3.02
1950-1960	9.27
1960-1970	19.04
1970-1980	25.55
1980-1990	19.30
1990-1995	13.35
1995-2000	4.22
2000-2002	2.69
2002-2004	3.18

2004-2005	2.97
2005-2006	0.88
2006-2007	1.93
<i>TOTAL:</i>	<i>115.81</i>

Cost per year to replace system (2000 Dollars)

\$208,445

Note: Fire protection is what determines the size of water mains, and as commercial development increases around the perimeter of the city, larger, more costly mains are required.

Public Works

Maintenance Personnel

Director

Melvin Odens

Superintendent

Ron Gilbertson

Working Foreman

Scott Ledeboer

Clerical

Janell Sommers

Maintenance Workers

Dave Carlson

Scott Carruthers

Justin DeLeeuw

Richard Doll

Dan Halvorson

Curtis Hein

Lynn Kluver

Steve Kotzenmacher

Todd Larson

Gary Manzer

Cal Miner

Ken Nelson

Ralph Nelson

Darin Niemeyer

Steve Quam

Galen Seehusen

Danny VanBuren

Mike VanDenEinde

Mechanics

Mike Stueckrath Robin Wright

Public Works Maintenance Staff Photo



Back Row: Gary Manzer, Curt Hein, Galen Seehusen, Ron Gilbertson, Scott Ledeboer, Cal Miner, Steve Quam

Middle Row: Robin Wright, Scott Carruthers, Darin Niemeyer, Mike Stueckrath, Danny VanBuren, Ralph Nelson, Lynn Kluver, Steve Kotzenmacher

Front Row: Dave Carlson, Justin Deleeuw, Todd Larson, Dick Doll, Ken Nelson, Dan Halvorson, Mike Vandeneinde

PUBLIC WORKS DEPARTMENT

2007 ANNUAL REPORT SUMMARY

Snow Removal and Precipitation Totals:

- Calendar year snowfall was 44.65”
- Calendar year precipitation total was 26.07”
- 2006 – 2007 seasonal snowfall was 34.90”
- Ten-year average seasonal snowfall is 46.78”
- Purchased 20 loads of salt (approximately 497.01 Tons)
- Snow-related labor total was 3,815 hours

Concrete Work:

- Work was completed at 18 various sites
- Work consisted of sidewalk replacement, curb replacement, Airport ramp and Park related concrete work

Brush/Compost Disposal Site:

- Open to the public 3-31-07 to 11-17-07
- 18,366 total units used the site in 2007
- About 3,037 cubic yards of compost material were hauled to the site in 2007
- 1,200 cubic yards of compost were screened during 2007 for public usage

Tree Planting:

- 18 varieties of trees planted during April and May
- 381 trees planted using 3 crews (6 staff)

Tree Removal and Trimming:

- 210 Dutch Elm Diseased trees were removed.
- Total number of trees removed in 2007 was 353
- Total number of stumps and large roots removed was 408.
- Tree and stump removal related labor was – 4,268 hours
- Approximately 2,600 trees were trimmed in 2007
- Tree trimming related labor – 2,017.5 hours

Sign Work:

- Approximately 110 signs were installed, repaired or removed

Street Maintenance:

- 26 days were spent hot patching streets in 2007 or about 1,432 hours
- 470.07 ton of hot mix was used
- Street sweeping was done from 3-12-07 to 11-27-07
- Crack sealing and air injection patching was contracted with L&M Services
- Seal coating was contracted with Caldwell Asphalt Co for a cost of \$33,954.00.

Painting:

- Crosswalks, yellow curbs, stop bars, and parking lots were painted
- Contracted Traffic Marking Services for centerline and lane line markings

Mosquito Control:

- Re-certified five pesticide applicators
- Sprayed mosquitoes from June 26, 2007
- Sprayed entire city one time with Adulticide (Anvil 2+2) in 2007 compared to six times in 2006 and twelve times in 2005
- Treated 1,900 catch basins with Larvicide (Vectrolex WSP) and treat storm water retention areas and wetland (Altosid Briquettes and Abate Pellets)
- This fifth year of the Mosquito Control Program, total cost for Mosquito Control \$7,412.27 (product only)

Airport Maintenance:

- Maintenance projects range from snow removal, mowing, trimming, patching, spraying weeds, sign work, rolling grass runway, cutting trees, and others.
- Labor hours at the airport were 2117 hour for 2007
- Labored on dirt work and concrete work and Misc. at new airport

Sanitary and Storm Sewer Maintenance:

- Staff cleaned approximately 90 miles of sanitary sewers
- Televised sewer lines prior to road construction
- Most of the city sanitary sewers are cleaned every year for preventive maintenance
- Assisted with pumps during flooding conditions
- Labor related total for sanitary and storm sewer maintenance was 1,794 hours for 2007

Ice Rinks, Hockey Rinks and Ski Trails:

- Maintain four skating rinks and two hockey rinks during the winter
- Maintain cross country ski trails when weather conditions permit
- Labor total for rinks and ski trails was 1,531 hours for 2007

Events Preparation:

- 240 shelter reservations were prepared at Robbins Island
- 33 Showmobile reservations and numerous non-fee community events were arranged
- Diamond and Field preparations were made for 532 soccer, football, baseball and softball games

Willmar, Minnesota

Precipitation and Snowfall Totals

Precipitation Totals: (January – December) *Eight year average is 27.53"

Month	Inches 2007	Inches 2006	Inches 2005	Inches 2004	Inches 2003	Inches 2002	Inches 2001	Inches 2000
January	.15	.06	1.20	.51	.34	.03	1.02	1.08
February	1.47	.53	.73	.63	.32	.89	1.48	1.17
March	.58	1.15	.68	1.11	.36	1.95	.75	1.05
April	4.88	3.82	2.91	1.33	3.15	2.03	6.87	.90
May	1.89	1.62	3.28	7.59	4.28	3.16	2.02	3.32
June	1.73	2.07	3.83	4.94	8.25	6.37	3.62	4.03
July	.92	1.71	1.96	5.10	4.51	4.58	2.03	4.39
August	6.29	1.97	3.93	.09	.20	8.43	1.62	1.33
September	3.63	.02	7.97	4.09	2.01	1.58	2.72	.50
October	3.49	3.68	2.14	4.39	1.06	3.21	.90	1.74
November	.00	.63	3.90	.71	.78	.03	4.93	1.18
December	1.04	1.18	1.14	.18	.30	.27	3.90	.67
Yearly Total:	26.07	18.44	33.67	30.67	25.56	32.53	31.86	21.36

* Weather data recorded by Waste Water Treatment Staff

Calendar Year Snowfall Totals: (January – December) *Ten year average is 44.23"

Month	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
January	1.00	1.00	14.50	7.70	3.00	1.60	9.00	18.60	22.40	16.70
February	11.20	4.50	5.30	10.60	11.80	5.10	22.10	9.00	3.70	2.80
March	14.00	4.75	3.00	4.30	6.50	29.20	8.20	.25	10.50	7.30
April	8.50					14.90		4.30	2.00	7.00
October						.50	1.00			
November	.05	.20	6.80		18.50	.70	32.20	8.00		5.00
December	9.90		18.05	1.15	4.50	1.80	5.80	16.45	3.50	1.95
Yearly Total:	44.65	10.45	47.65	23.75	44.30	53.80	78.30	56.60	42.10	40.75

*Weather data recorded by Waste Water Treatment Staff

Seasonal Snowfall Totals: (October – April) * Ten Year Average is 46.78"

Seasonal Years	Inches
2006 – 2007.....	34.90"
2005 – 2006.....	35.10"
2004 – 2005.....	43.20"
2003 – 2004.....	45.60"
2002 – 2003.....	24.30"
2001 – 2002.....	89.80"
2000 – 2001.....	63.75"
1999 – 2000.....	35.65"
1998 – 1999.....	45.55"
1997 – 1998.....	49.95"



SNOW REMOVAL:

The Public Works Department's responsibility during each snowfall is as follows:

Streets – 130.67 miles
Senior Center Parking Lot
Fire Station Parking Lot
Court House Lot
Sidewalks – 9.9 miles
Ice rinks – (4)

Airport – Runway, Taxi-way, Hangers
Civic Center Parking Lot
City Parking Lots – (8)
Bike Paths – 12.25 paved miles
Hockey rinks – (2)
County Office Building Lot

Private operators are hired to assist with snow hauling in the Central Business District, Airport, 1st Street, and Highway 12

The Public Works Department stockpiled about 2,200 yards of salt-sand mix for snow and ice control usage in the 2007 - 2008 snow season. For the year 2007, 20 loads of road salt were purchased for ice control or about 497.01 tons. Snow-related labor was 3,815 hours.





Public Works crews installing concrete bleacher pads at the Soccer fields by Roosevelt School.

CONCRETE WORK:

Public Works Staff worked on a variety of concrete projects for the year 2007. The following is a break down of the locations and work completed:

502 Willmar Avenue SW	Replace sidewalk panels
Carolina Avenue SW	Replace sidewalk panels
823 4th Street SE	Replace sidewalk panels
721 Bonham Blvd. SW	Replace sidewalk panels
1600 9th Street SW	Replace sidewalk panels
Richland Park	Install sidewalk
Airport Hangers	Ramp connections (3)
Airport Hangers	Between Hangers (3)
Airport F-14	Tie Downs and Footings

Brush/Compost Site

Month	Brush	Compost	Total Units
March	28	16	44
April	888	425	1313
May	1341	1491	2832
June	1667	1195	2862
July	1005	651	1656
August	909	871	1780
September	1019	1108	2127
October	1437	2672	4109
November	509	1134	1643
		Grand Total	18,366

Part of the Public Works duties at the Brush/Compost Site are to push up the brush and compost piles after each day the site is open to the public. About three times a year the compost piles have to be rolled and turned to aid in the decomposition process. The decomposition process takes about three years to complete. During the month of August a Trommel screen was rented to screen about 1,200 cubic yards of compost. The brush pile is burned about four to seven times per year. For the year 2007 the brush pile was burned on January 22, March 26, July 17, and September 7. During the 2007 year the general public and Public Works Crews hauled in about 3,037 cubic yards of new compost material (leaves, grass etc.)

ARBOR DAY EVENT AT GESCH PARK:



Miss. Heitzman's 3rd grade class, May 4, 2007, at Gesch Park.

TREE PLANTING:

Varieties and quantities of trees planted for 2007 are as follows: Bur Oak – 15, Spring Snow Crab – 10, Amur Chokecherry – 5, Shamrock Linden - 35, Bergeson Ash – 10, Accolade Elm – 10, Autumn Purple Ash – 10, Fall Gold Ash – 5, Northern Blaze White Ash – 10, Boulevard Linden – 45, Autumn Blaze Maple – 35, Hackberry – 45, Deborah Maple – 35, Emerald Luster Maple – 45, Sienna Glen Maple – 35, Fall Fiesta Sugar Maple – 10, Columnar Maple(B&B) – 1, Autumn Gold Ginkgo – 10. Total trees planted 381.

DUTCH ELM DISEASE HISTORY:

Year	Public and Private Dutch Elm Disease Removal	Total Removals	Number of Trees Planted
1972	4	15	150
1973	6	20	120
1974	2	127	203
1975	4	49	158
1976	64	96	160
1977	159	242	445
1978	323	330	360
1979	179	246	437
1980	220	255	679
1981	454	460	490
1982	495	505	498
1983	315	411	478
1984	525	610	761
1985	599	599	524
1986	424	503	571
1987	348	440	635
1988	123	149	503
1989	351	364	549
1990	442	528	559
1991	262	324	598
1992	160	248	730
1993	84	138	648
1994	178	219	421
1995	105	156	328
1996	110	176	361

1997	97	276	466
1998	131	230	417
1999	74	217	441
2000	68	144	441
2001	70	244	381
2002	83	170	363
2003	234	432	366
2004	776	849	348
2005	472	561	450
2006	285	331	392
2007	210	353	381
TOTALS:	8,436	11,017	15,812

Listed above are the Dutch Elm removals from public and private property. Total removals are the Dutch Elm trees and trees that are removed from construction, wind storm and property owner requests.



Above pictures crews are removing a Dutch Elm Diseased Tree. Public Works Crews removed 210 Dutch Elm Diseased Trees in 2007.

Public Works Crews trimmed an estimated 2,600 trees with bucket trucks and pole saws in 2007. Most of this trimming is done for roadway traffic clearance, sidewalk clearance, and proper shaping. Trimming trees gives crews a chance to visually inspect each tree for hazardous or hanging braches.

SIGN WORK:

A number of reasons require the Public Works Department to address different sign needs for the City. Reasons for necessary sign work include accidents, new sign placement, construction activities, upgrades to faded or poor signs, and road restrictions. Crews repaired, replaced, or installed a total of 110 signs for calendar year 2007.



STREET MAINTENANCE WORK:

◆ Street Sweeping

Street sweeping started on March 2, 2007 and continued throughout the season, when nonfreezing weather permits, with the last day being November 27, 2007. The sweeper is assisted with trucks hauling during spring sand pickup and fall leaf pickup. For the 2007 year, 1,253 hours were spent on sweeping and 719 hours were spent hauling leaves and sweepings with trucks. Spring and summer street sweepings are stock piled and hauled to the Kandiyohi County Landfill and used as daily cover. Fall leaves that are picked up are hauled to the City Brush/Compost facility where the leaves are composted.

◆ Pothole Repair

When weather does not permit the repair of potholes with hot mix, crews use a cold mix material that is heated in a pothole patcher. This pothole patcher is a trailer mounted unit with a four-yard box that heats the cold patch material for repairing potholes temporarily. City Crews spent 398 hours in 2007 pothole patching Crews used an estimated 100 tons of cold mix during 2007.

◆ Street Repair

Public Works staff worked on street patching with hot mix 26 days during 2007. Crews used about 470.07 tons of hot mix. An important part of this task is maintaining safe traffic control during street repair operations for motorists and pedestrians. Any blacktop that is removed for patching is hauled to Duininck's or Monson pit for recycling. City Crews spent 1,432 hours on these duties.

◆ Preventive Street Maintenance

Part of street maintenance is also trying to prolong the life of streets and roadways. This is done through road restrictions, bituminous pavement crack sealing, and seal coating. The following are maps of the Public Works maintenance schedules as done in 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006 and 2007.

PAINTING:

Public Works Crews, because of traffic volumes, weather, new construction, and requested traffic changes, repaint yellow curbs, turn arrows, crosswalks, parking lots, stop bars, handicap stalls, and on-street parking stalls.

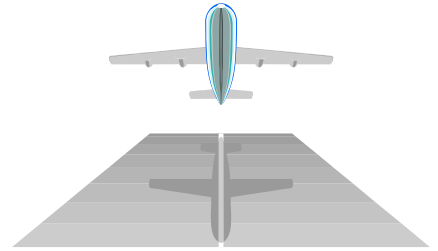
Repainting of centerlines and lane lines is contracted annually. Traffic Marking Services was the contractor for 2007 for a cost of \$8,779.80. (113,600 LF Yellow and 78,600 LF White)

MOSQUITO CONTROL:

- ◆ In 2003 the City of Willmar implemented a mosquito control program. Five staff members were licensed as certified pesticide applicators. Two sprayers were purchased for application of an Adulticide mosquito control product.
- ◆ 2007, the fifth year of the mosquito control program, because of the unusually dry summer minimal efforts were needed to control mosquitoes.
- ◆ The Public Works Department sprayed the entire City of Willmar one time during the summer mosquito season with additional emphasis on park usage and community events. Average is around twelve times annually spraying.
- ◆ Adulticide – Anvil 2+2 was the product used.
- ◆ One application of Larvicide was applied to 1,900 city catch basins.
- ◆ One application of Altosid Briquettes was applied to wetlands and storm retention areas.
- ◆ Two applications of Abate Pellets were applied to storm retention areas that had standing water in them
- ◆ Larvicide -Vectoless WSP, Altosid Briquettes, and Abate Pellets were the product used.
- ◆ Total product purchased from Clarke Mosquito Control was \$7,412.27. Compared to 2006, \$ 25,256.46 of product was purchased.



Mosquito Larvae in Wetlands



AIRPORT MAINTENANCE:

Projects at the airport range from snow removal, mowing, trimming, patching, spraying weeds, sign work, painting, rolling grass runways, additional hours were spent doing dirt work, concrete work, rock picking and miscellaneous at the airport site. Total hours spent on maintenance duties were 2,117 hours for 2007.

FIRE HYDRANT MAINTENANCE:

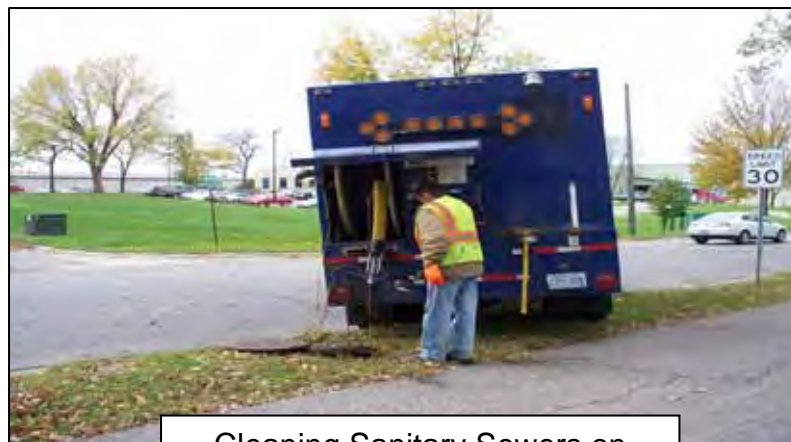
Each year city crews must check and service all fire hydrants in the city. Primarily this is done in the fall or early winter seasons. This is done to prevent freeze up and it also gives crews a chance to inspect and lubricate each hydrant. The City currently has over 1,600 public and private fire hydrants. Public Works Crews repair fire hydrant from accidents as well as general repairs.

SANITARY SEWER MAINTENANCE:

As part of a preventative maintenance program, Public Works staff cleans about **85.35** miles of sanitary sewer lines a year. The lines are cleaned in the fall and winter when weather permits. This preventive program is done to minimize costly sewer backup into private property.

Occasionally Public works staff is called to other private companies or agencies to open blocked or frozen sewer lines. Some of these are the mobiles home parks, Kandi Entertainment Center, Willmar Regional Treatment Center, Eagle Lake Sewer District, County Culverts, City of Kandiyohi, City of Pennock, Jennie-O Turkey Store, Mn/DOT, Kandiyohi County Landfill, Burlington Railroad, and others.

Ahead of street construction sewer lines are televised to identify potential future and persistent problems. A total of 1,791 hours were spent on sanitary and storm sewers for 2007.



Cleaning Sanitary Sewers on
Gorton Avenue NW

MI SCELLANEOUS:



Bergquist Park storm water project

Two popular winter activities are ice-skating and cross-country skiing. Crews install hockey boards in the fall, paint boards as needed, and repair any damage from previous years. Public Works Crews sweep and water rinks on a daily basis in freezing weather conditions. Crews spent 1,525 hours on watering skating rinks and skating rink maintenance. Zero hours were spent on setting cross-country ski trails with a snowmobile ski trail groomer. Setting ski trails is very dependent on snow levels and snow conditions.



Watering Ice Rinks at Garfield



Installing Thin Ice Signs

Each winter thin ice signs are installed on Willmar Lake and Foot Lake. The Aerators were turned on 1-18-07 and turned off 3-23-07.

EVENTS PREPARATION:

In preparation of scheduled events at Robbins Island, CBD events, Willmar Fest, and Swansson Field, Public Works Crews must clean and maintain shelters and restrooms.

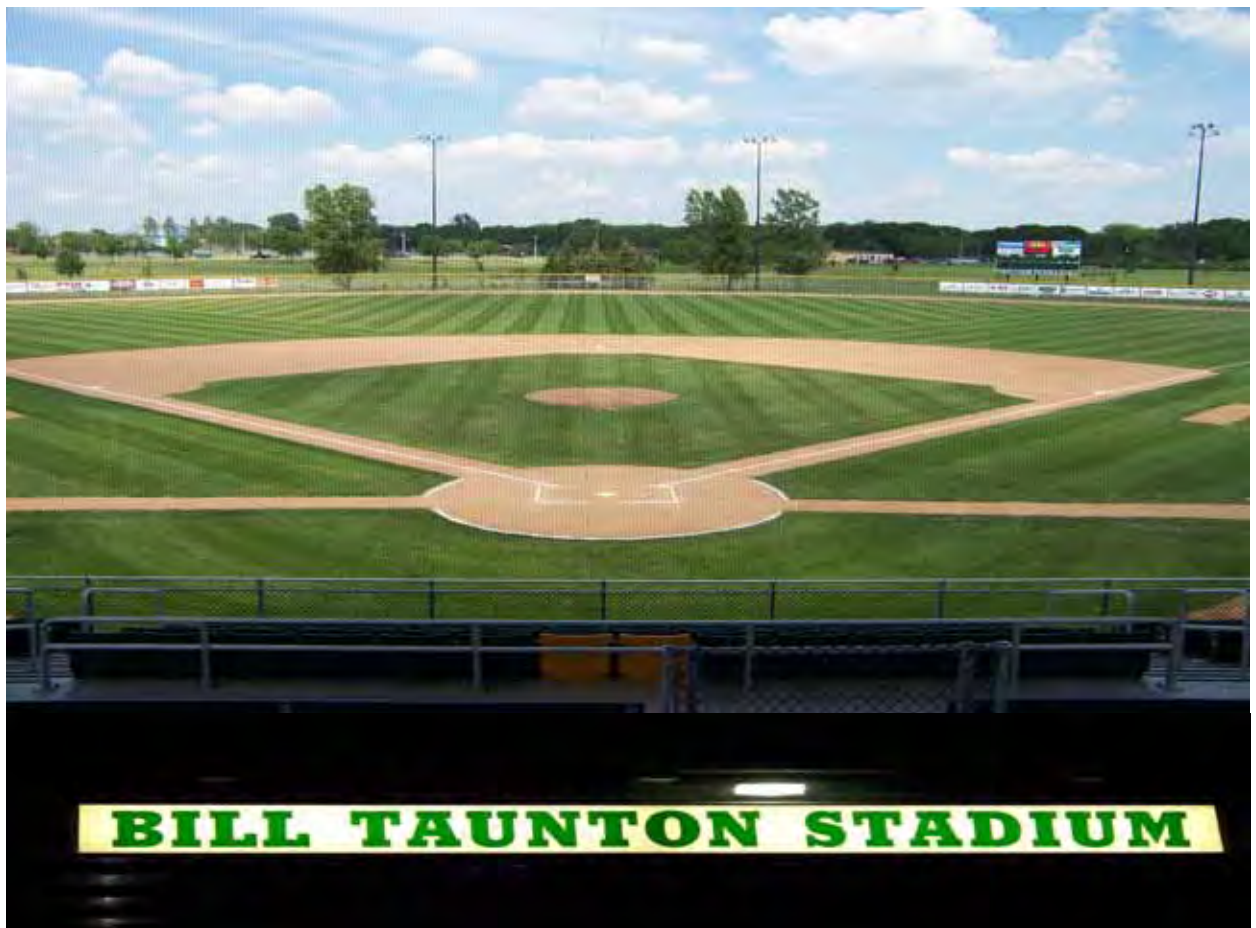
- For 2007, a total of 240 Robbins Island reservations were scheduled and prepared for.

On request for usage of the Showmobile, Public Works Crews setup the Showmobile and stage.

- Showmobile reservations for 2007 were 33 which include, Concert in the Park, Sonshine, Relay for Life, Church Events, County Fair, Celebrate Art, and other Misc.

A part of the city summer and fall activities is baseball, softball, soccer, and football. Prior to all games, staff must drag the ball diamonds, chalk lines, setup fields, and paint lines. Crews spent **1,377 hours** on diamond and field maintenance.

- For 2007, approximately 532 baseball, softball, soccer, and football games were prepared for.



2006 PARK PROJECTS:

- Assisted with the installation of lights and bleachers at soccer fields
- Installed 1st base berm at Baker diamond
- Sprayed all playground areas for weed control
- Installed sand under some play equipment for safety
- Installed tile line and new play equipment at Richland Park
- Repaired Play Equipment at Hilltop Park
- Turf aerated baseball, soccer, and football fields
- Installed security lighting and repaired play equipment at Bjorsell Park
- Added agri-lime to softball and baseball fields
- Installed new play equipment at Canigo Park
- Installed 9-hole Frisbee golf course at Robbins Island
- Shingled roof at Guri Shelter at Robbins Island
- Painted and repaired walls and floor at change house, Robbins Island
- Installed sign at Jaycees Park
- Repaired chlorine system at Rice Pool
- Rebuilt horseshoe courts at Rice Park
- Assisted with day of caring in parks and other public areas

PARK DATA:

Park Areas		37
Park Acres	(approximately)	310 acres
Park Shelters/Gazebos		30
Ice Skating Areas (North side, Lincoln, Hilltop, and Garfield)		4
Out side Hockey Rinks (Garfield, and Lincoln)		2
Lighted Softball Fields		4
Lighted Baseball Fields		2
Nature Areas		4
Nature Areas Hiking Paths (non paved)		2.1 miles
Tennis Courts		
Lighted		10
Unlighted		5
Shared-Lighted		4
Hiking and Biking Trails (paved)		9.7miles
Wading Pool		1
Dorothy Olsen Aquatic Center		1
Beach Areas		1
Aeration Areas		2
Skate Board Parks		1
BMX Bike Tracks		1

MISCELLANEOUS PROJECTS:

- **Assisted the Engineering Department with surveying projects**
- **Cleaned storm water ditch on 28th St SW Industrial park**
- **Assisted with storm water control project in Bergquist Park**
- **Painted out graffiti at various parks and public areas**
- **Repaired boulevard areas from snowplow damage**
- **Water and installed flowers and flower baskets in downtown**
- **Assisted Waste Water Plant with various projects**
- **Assisted Senior Center with various projects**
- **Watered small trees during dry periods**
- **Worked with Boy Scout setting up and completing Scout projects**
- **Provided traffic control for various community events**
- **Provided traffic control during flooding conditions**
- **Clean catch basins as needed**
- **Paint fire lane for Sonshine event**
- **Public Works Crews installed and removed snowflake, banners, wreaths and flags**
- **Road restriction were in place from March 26 to April 27**
- **Upgraded City of Willmar radio system to narrow band frequency**
- **Assisted Civic Center with ice maintenance and ice removal**
- **Sprayed weeds in Central Business area and trunk highway medians**
- **Patched various areas for Municipal Utilities**
- **Moved bleacher and tables for various events**

**WASTEWATER TREATMENT PERSONNEL
(2007) ANNUAL REPORT**

Superintendent

Colleen Thompson

Working Foreman

Jim Gauer

Operators

Terry Thole

Allen Schueler

Doug Ruter

Chris King

Bio-solids Coordinator

Jason Lindahl

Lab Technician

Jim Werder

Safety Coordinator/Assistant Lab Tech

Les Lange

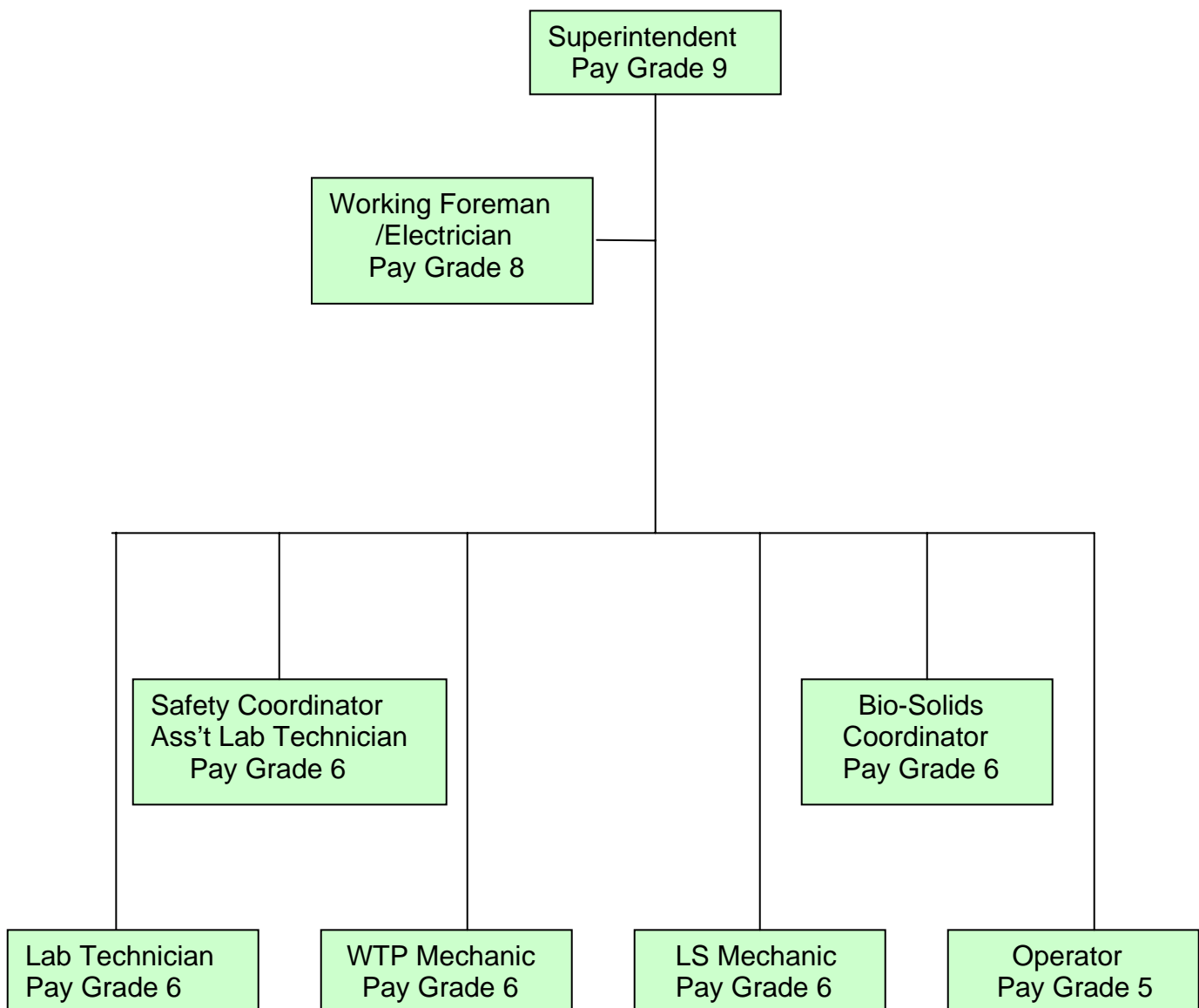
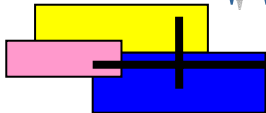
Mechanic

Paul Marcus

Lift Station Mechanic

Tom Templer

Wastewater Treatment



2007 WASTEWATER TREATMENT FACILITY STAFF



LEFT TO RIGHT:

**Les Lange, Paul Marcus, Allen Schueler, Colleen Thompson, Jim Gauer,
Terry Thole, Doug Ruter, Tom Templer, Jason Lindahl, Chris King
and Jim Werder**

CITY OF WILLMAR EXECUTIVE SUMMARY OF WWTP 2007 ANNUAL REPORT

Highlights for 2007

REGULATORY

- **(MESERB) Minnesota Environmental Science and Economic Review Board :**

MESERB continues to work with the MPCA on wastewater issues for the City as well as other members. This organization reviews and responds to issues as they relate to wastewater treatment and the environment. Some of the hot topics monitored by MESERB in 2007 are as follows: Water Quality Trading, Phosphorus rule amendments, Mercury Standards, Lower Minnesota River Dissolved Oxygen TMDL (Total Maximum Daily Load), Lake Pepin Eutrophication and Turbidity TMDL, as well as Stormwater Phase II MS4 Permit issues. MESERB is actively participating in the Water Quality Trading Advisory Committee which began meeting in February of 2007 to develop a structure for pre-TMDL and post-TMDL phosphorus trading regulatory schemes.

- **Minnesota River Basin General Phosphorus Permit # MNG420000:**

This General Permit calls for phosphorus reductions at all wastewater treatment facilities over a ten-year period. Phase 1, addressing the first five years of the permit, was issued to the City on December 1, 2005 and will expire on November 30, 2010. To meet the requirements of phase 1, the City monitored phosphorus levels at both the influent and effluent of the WWTF. These results were then submitted along with the monthly Discharge Monitoring Reports in 2006 and 2007. Starting in May of 2008 the City has the following options: to chemically reduce phosphorus levels at the WWTF, begin to trade for phosphorus credits with another community, or file for an exclusion from the 5-month mass phosphorus limit. Filing for the exclusion would commit the City to meeting the 1 mg/l phosphorus limit by November 30, 2010.

- **City NPDES/SDS Permit
(National Pollutant Discharge Elimination System/State Disposal System)**

The goal of this permit is to protect water quality in accordance with Minnesota and U.S. statutes and rules, including Minn. Stat. chs. 115 and 116, Minn. R. chs. 7001, 7050, and the U.S. Clean Water Act. This is a five year permit, effective December 29, 2004 to November 30, 2009. In 2007 the City applied for re-issuance of this permit to include effluent limits for the new WWTF. This permit was public noticed on December 3, 2007 and closed on January 2, 2008. It will include interim limits for the existing facility and final limits that will be effective once the new WWTF is operational. This permit costs the city approximately **\$14,350** per year.

- **Lake Pepin Total Maximum Daily Load (TMDL):**
Lake Pepin is a natural lake on the Mississippi River and has been placed on the 2004 list of impaired waters for two types of water quality problems, excess nutrients and turbidity. Both point and non-point sources of pollution contribute to Lake Pepin impairments. The Minnesota River, which is a primary source of phosphorus to Lake Pepin, also contributes approximately 80 to 90 percent of the sediment load. The City will need to follow this TMDL as it relates to the wastewater treatment plant relocation and conveyance system project. The timeline to implement this TMDL is 2009.

EXISTING FACILITY: Treatment, Collection and Biosolids

- **Treatment:**

2007 WWTP Averages

Flow 3,758,250 gpd
Flow is currently at 75% of design flow

TBOD influent 12,231 lbs/day
TBOD is at 100% of plant design (see Notes 1 & 2 below)

CBOD effluent 274 lbs/day or 8.75 mg/l
Effluent is operating at 44% of plant limit (limit is 20 ppm)

TSS influent 9089 lbs/day
TSS is at 68% of design (see Note 2 below)

Notes:

- 1) *Design TBOD has been determined to be 12,190 lbs/day versus 10,800 in 2002 and earlier.*
- 2) *WWTP started bringing final clarifier solids to the head of the plant in July 2006 resulting in an increase in BOD and TSS loading.*

WWTP Peak Flow

A peak flow of 5,416,000 gallons occurred on Aug 20, 2007 as compared to 6,639,000 gallons on May 1, 2006. The City received 3.45 inches of rainfall on the 20th. The spring meltdown was not significant this year.

- **Collections:** consists of 25 lift stations, 1,709 sanitary manholes and 93.5 miles of pipe ranging in size from 8 inch to 38 inch.

Lift Stations:

The WWTP staff monitors and maintains 16 lift stations within the City and 9 around Eagle Lake. In August of 2007 city staff flushed Eagle Lake sanitary sewer system and will continue on a three year rotation. Cleaning and flushing of city stations are done annually and some more frequent as needed. Lift stations that pumped the greatest volume of wastewater to the plant in 2007 were the State Hospital, Hwy #12, Iverson Park and Arby's lift stations. The City purchased a new Air Conveyance unit to be used to clean sanitary and storm sewers as well as lift stations.

SCADA:

All of the old ILEX SCADA system has now been removed and replaced. All plant and lift stations are now monitored and/or controlled by PLC's at each location that communicate back to a central HMI based SCADA system at the WWTF.

- **Biosolids:**

The wastewater treatment plant injected 4.45 million gallons or 559 dry ton of biosolids to agricultural land. The City has available over 2,200 acres of MPCA approved farm sites to recycle this nutrient-rich fertilizer back to the environment.

NEW PLANT

- **Wastewater Treatment Plant Relocation and Conveyance System Project**

This project has three phases: Planning, Design and Construction. The Planning phase was completed in 2006 and the Design and Construction phases were both active in 2007:

- The 95% Design phase was completed by the City's design and program management firm, Donohue and Associates, in December 2007. Plans and specifications for the new Wastewater Treatment Facility (WWTF) were submitted to the MPCA and City of Willmar staff for review and approval. Construction cost estimates were updated and project funding was secured through the Minnesota Public Facilities Authority. This project is scheduled to be advertised in May with bids due in June. Construction to begin in August and completed by November 2010.
- There were two construction projects active in 2007:
 - Phase 2 of the Southern Interceptor sewer was constructed east of the Kandi Mall. A local construction firm began construction of this segment in October and completed work in early November

- Existing WWTF Interim Modifications were completed in late 2007 to enhance the high flow pumping capacity of the existing WWTF until the new plant is operating.

With construction starting in 2008, the program will be very active for the next three years. The project will wrap up in early 2011; with the decommissioning of the existing WWTF.

INDUSTRIAL TESTING

- **Jennie-O Turkey Store**

The City's only industrial discharge permit is with Jennie-O Turkey Store. The City continues to monitor Jennie-O's discharges and tracks their impact/loading on the wastewater treatment plant. In 2007 Jennie-O contributed 51% of the plants total biological oxygen demand, 22% of the total suspended solids and 35% of the flow (see Notes 1 & 2 above).

In comparison to their interim permit limits with the City, in 2007 Jennie-O is operating at 90% of TBOD, 66% of TSS and 73% of flow.

Two (2) fines were issued to JOTS in the amount of \$1,000 each. One (1) TBOD maximum day and one (1) TBOD monthly average were violated.

- **Burlington Northern**

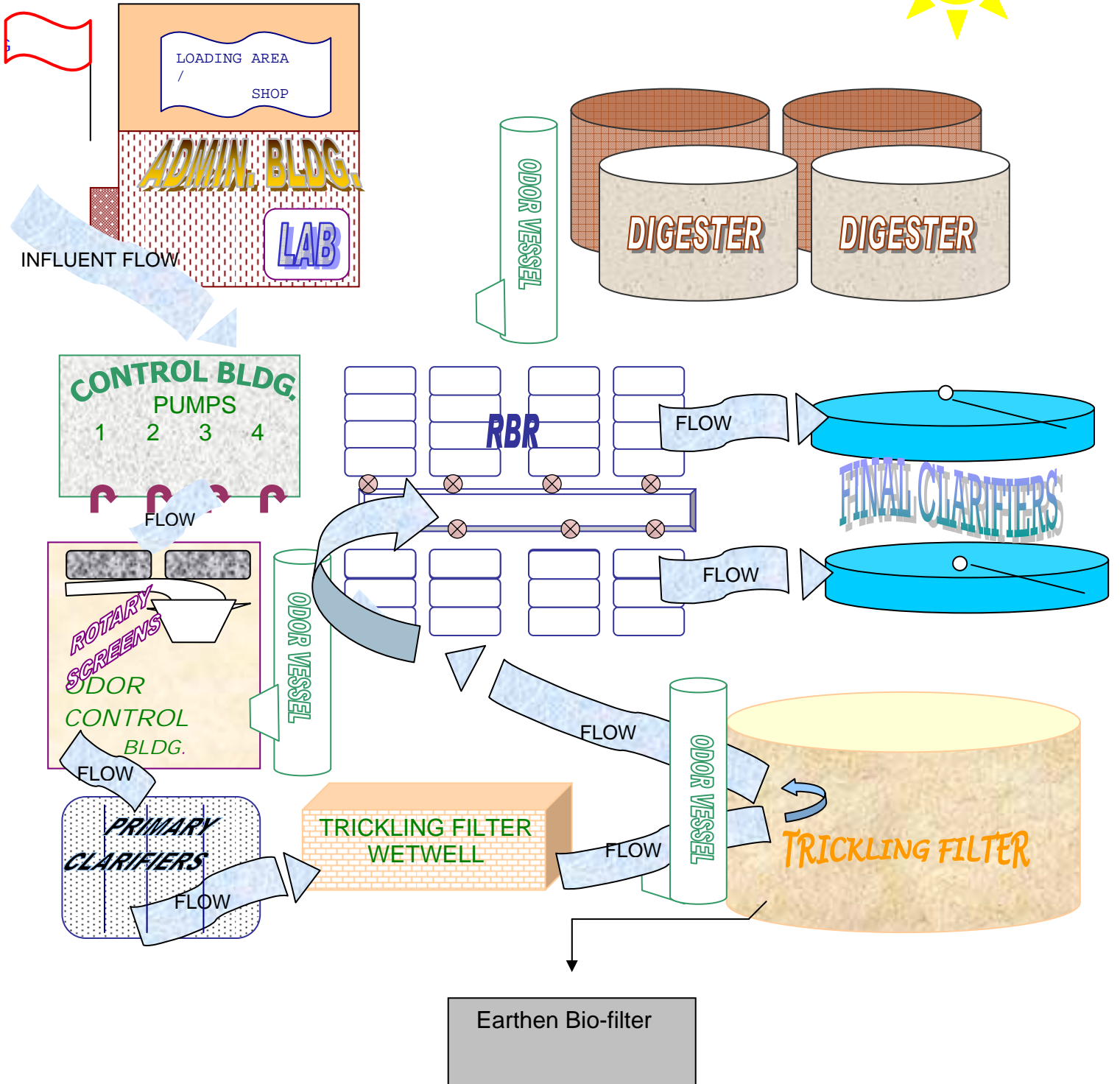
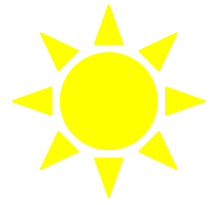
Burlington Northern retains a permit with the Minnesota Pollution Control Agency that requires monitoring of their discharge to Foot Lake. The Burlington Northern process water retention ponds were complete in 2002 and continue to relieve the armory lift station of storm water during rain events.

SAFETY AND CONTINUING EDUCATION TRAINING

The Wastewater Treatment Plant staff continues to conduct monthly safety meetings covering recommended requirements set by State and Federal OSHA standards. In addition, the City consults with Administration Safety Associates quarterly to enhance our Program.

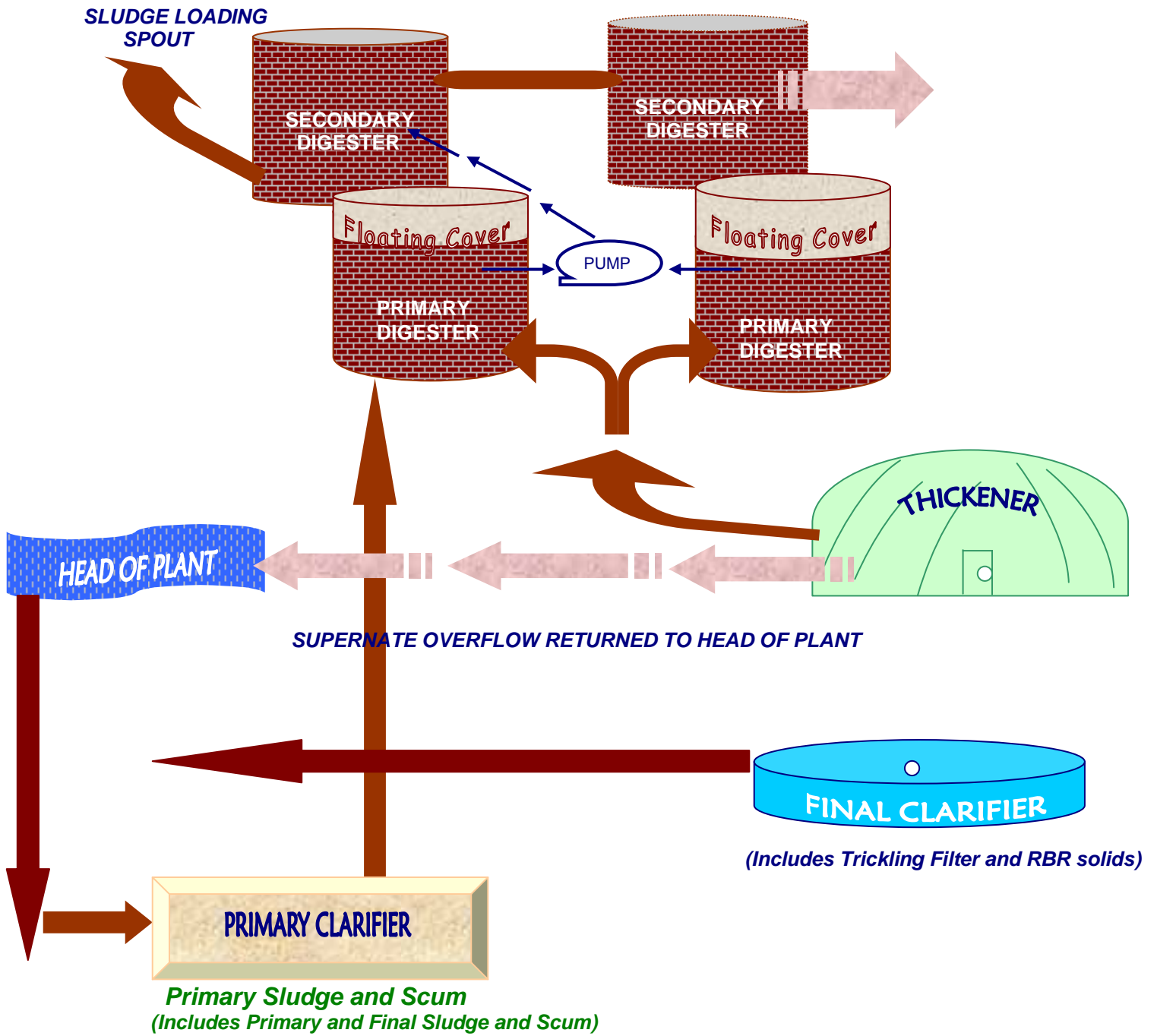
All employees have attended many training seminars throughout the year for renewal of certificates. All employees are certified with a Wastewater Treatment Operator Certificate and Boilers Licenses.

WILLMAR WASTEWATER TREATMENT PLANT



SOLIDS PROCESSING FLOW DIAGRAM

SOLIDS PROCESSING FLOW DIAGRAM



YEARLY PCA REQUIREMENTS:

REPORT	DUE DATE	DATE SUBMITTED
• 2007 Pretreatment Annual Report	01-31-08	01-16-08
• 2007 MPCA Biosolids Report	12-31-07	12-18-07
• 2007 EPA Annual Biosolids Report (submitted by MPCA)	12-31-07	12-18-07
• 2007 Hazardous Chemical Inventory Report (Tier 312)	03-01-08	01-30-08
• 2007 Hazardous Waste License	01-27-08	01-17-08
• 2007 Water Use Report	02-15-08	01-17-08
<ul style="list-style-type: none"> • Monthly Discharge Monitoring Report due every Month prior to the 21st. • The most recent MPCA inspection was performed on January 17, 2007 by MPCA staffers, Lisa McCormick and Aaron Luckstein. The compliance monitoring survey results showed the facility was operated and maintained as set forth in the terms and conditions of the facility's NPDES permit. However, the NPDES/SDS Permit does require the City to control any significant industrial users and a strategy on how the City plans to do this is needed. The strategy will be completed in 2008. • Chlorinating of the final effluent occurs from May through October. • The Annual Evaluation and Planning Survey, has been replaced by the Wastewater Infrastructure Needs Survey (WINS). The WINS survey is to provide the MPCA and the Minnesota Legislature with essential information on the condition and future needs of Minnesota's wastewater infrastructure. The requirement for completion of the survey is mandatory and will be satisfied every other year. A survey was completed and submitted on August 22, 2007. 		

TREATMENT:

Pretreatment consists of coarse screenings and grit removal for the protection of

subsequent treatment units and equipment. The two rotary screens are located after the influent pumps and remove grease and other fine material.



Course Barscreen and Compactor



Rotary Fine Screens

Primary treatment consists of Primary Clarifiers that allow sedimentation to occur, removing the greatest portion of suspended solids.

Secondary treatment consists of biological treatment of the wastewater by means of the Trickling Filter, RBCs and Final Clarifiers. This treatment phase converts dissolved material into settleable material reducing the organic content in the water.



Trickling Filter



Rotating Biological Contactor's (RBC'S)

Air Treatment

The Willmar Wastewater Treatment Plant is surrounded on three sides by urban development. One of these sides includes a Shopping Mall. In an attempt to reduce

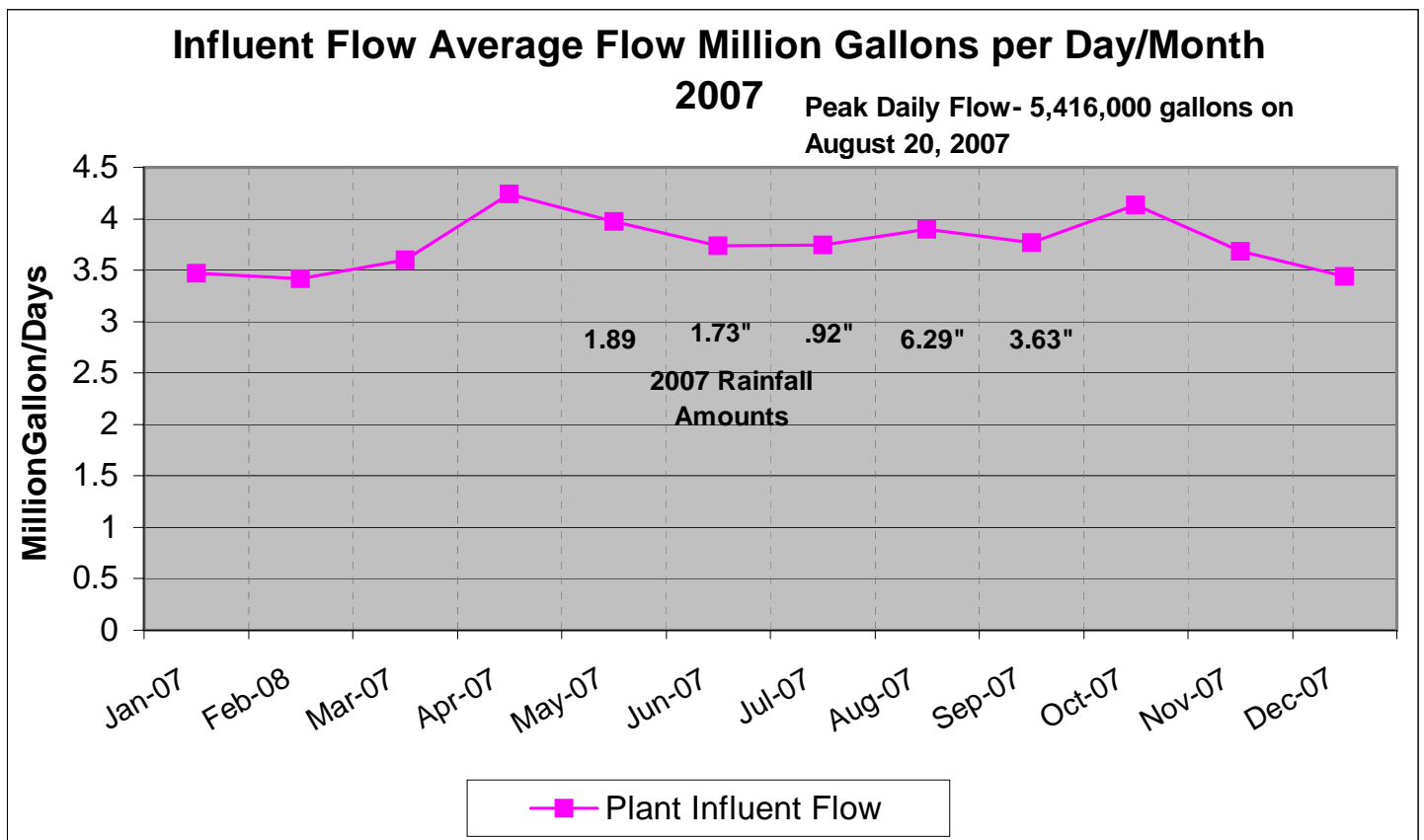
reoccurring odors at the WWTP, City staff constructed its first earthen bio-filter in 2003. In its simplest form, a bio-filter is considered a natural process, similar to the biological treatment of our wastewater. It works by blowing odorous air through a series of pipes and then through a rock layer and compost/wood chip media. The 2003 bio-filter media was removed and replaced in December of 2006 in about 2 days for approximately \$18,000.



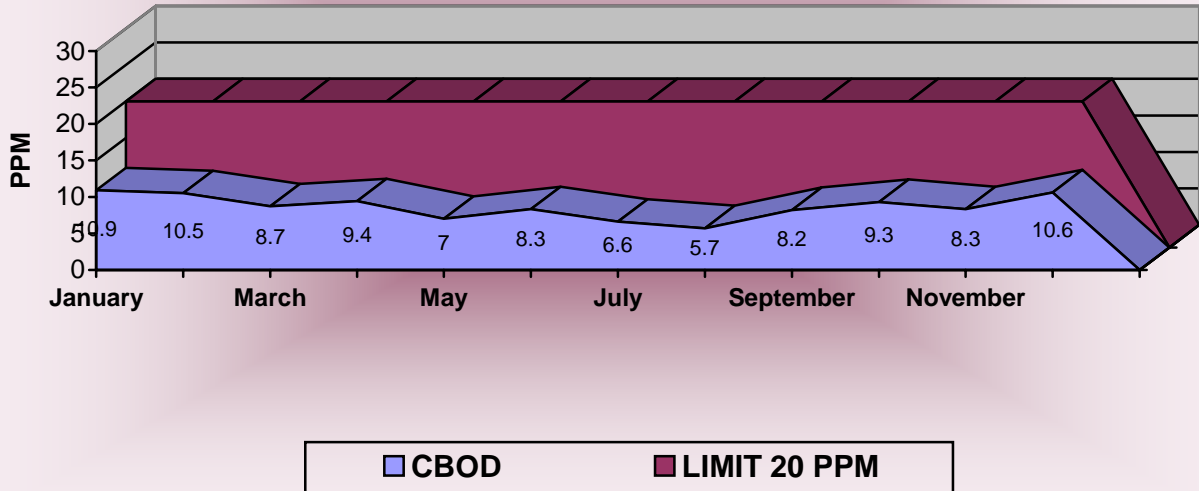
Bio-filter media installation-December 2006

<i>PLANT AVERAGES:</i>				
<u>Year</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
Flow	3,631,083 GPD	3,810,417 GPD	3,475,381 GPD	3,758,250 GPD

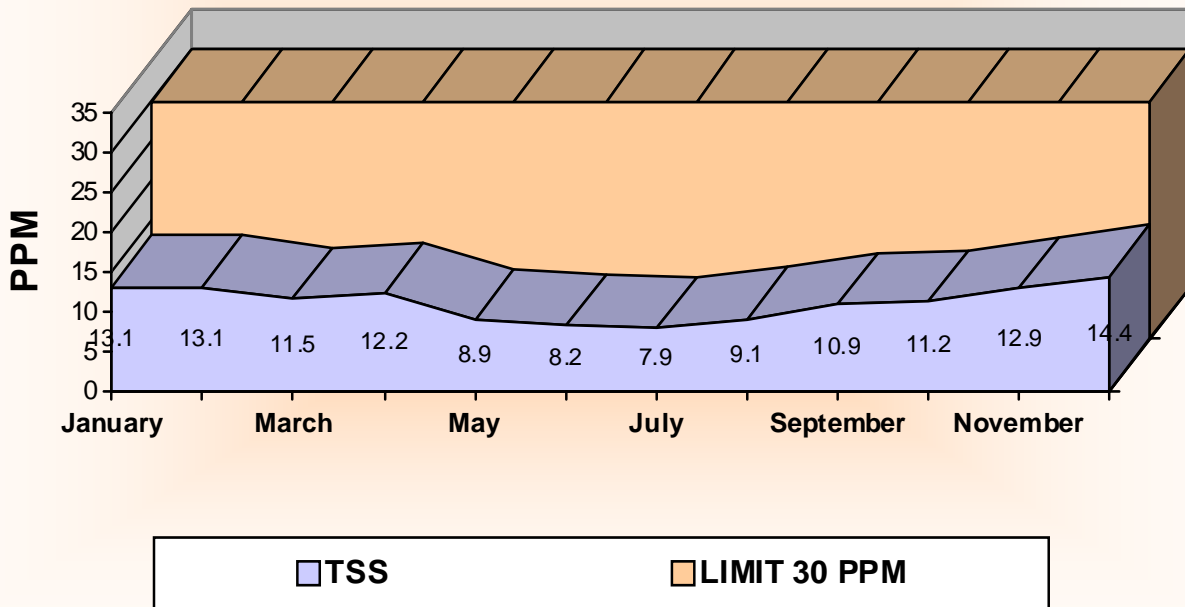
CBOD Influent	252 MG/L	254 MG/L	300 MG/L	297 MG/L
CBOD Influent lbs./day	7,829 LBS	8,313 LBS	9,760 LBS	9,638 LBS
CBOD Effluent	10.92 MG/L	10.83 MG/L	9.25 MG/L	8.75 MG/L
CBOD % Removal	95.69%	95.58%	96.7%	97.06%
TSS Influent	176 MG/L	174 MG/L	215 MG/L	290 MG/L
TSS Effluent	10.15 MG/L	10 MG/L	9.33 MG/L	11 MG/L
TSS % Removal	94.15%	94.01%	95.1%	96.01%
Total Phosphorus Effluent	7.17 MG/L	7.72 MG/L	7.6 MG/L	7.65 MG/L
Dissolved Oxygen Effluent	8.67 MG/L	8.76 MG/L	8.69 MG/L	8.87 MG/L
TBOD Influent	239 MG/L	286 MG/L	316 MG/L	353 MG/L
TBOD Influent lbs./day	9,787 LBS	10,089 LBS	10,727 LBS	12,231 LBS
Ammonia Nitrogen Effluent	10.12 MG/L	16.68 MG/L	11.7 MG/L	8.44 MG/L



**WWTP EFFLUENT CBOD
(Monthly Average) (2007)**

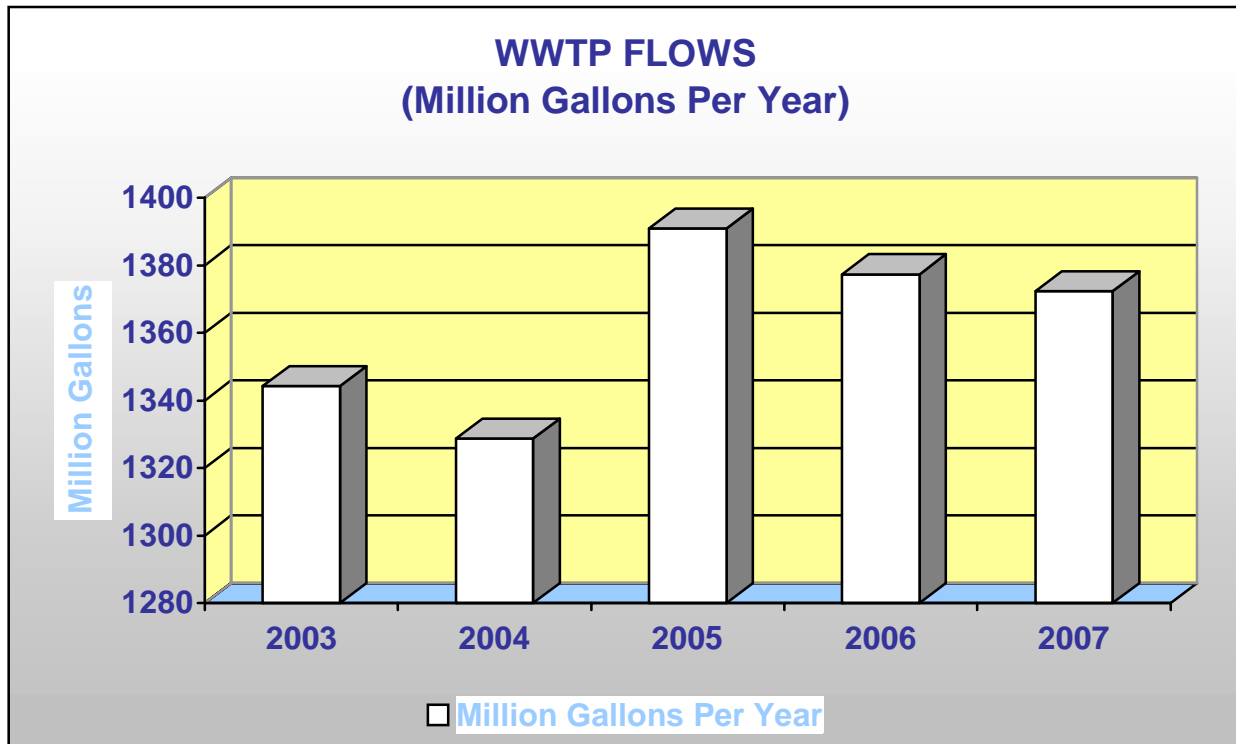


**WWTP EFFLUENT TSS
(Monthly Average) (2007)**



WWTP FLOWS (Million Gallons Per Month)

<u>Month</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
January	107.418	102.642	98.251	115.426	107.568
February	99.593	97.251	91.831	100.073	95.698
March	107.170	103.783	103.816	120.587	111.531
April	116.804	101.043	121.601	136.487	127.096
May	128.666	113.275	118.764	139.890	123.071
June	140.268	128.255	133.254	113.960	112.186
July	131.935	120.036	115.016	110.352	116.106
August	111.604	113.076	117.877	118.809	120.79
September	101.678	115.396	127.644	107.366	113.082
October	102.530	116.713	121.387	110.678	128.25
November	95.571	112.800	120.486	101.072	110.439
December	100.996	104.501	120.975	102.655	106.586
Totals	1,344.233	1,328.771	1,390.902	1377.355	1372.403
Minimum	95.571	97.251	91.831	100.073	95.698
Average	112.02	110.731	115.901	114.780	114.37
maximum	140.268	128.255	133.254	139.960	128.25



- WWTP 2007 total influent flow decreased 0.9% from 2006.
- Peak daily flow was 5,416,000 gallons on August 20, 2007.

RAIN SUMMARY:

2007

May - 1.89"
June - 1.73"
July - 0.92"
August - 6.29"
September - 3.63"
TOTAL: 14.46"

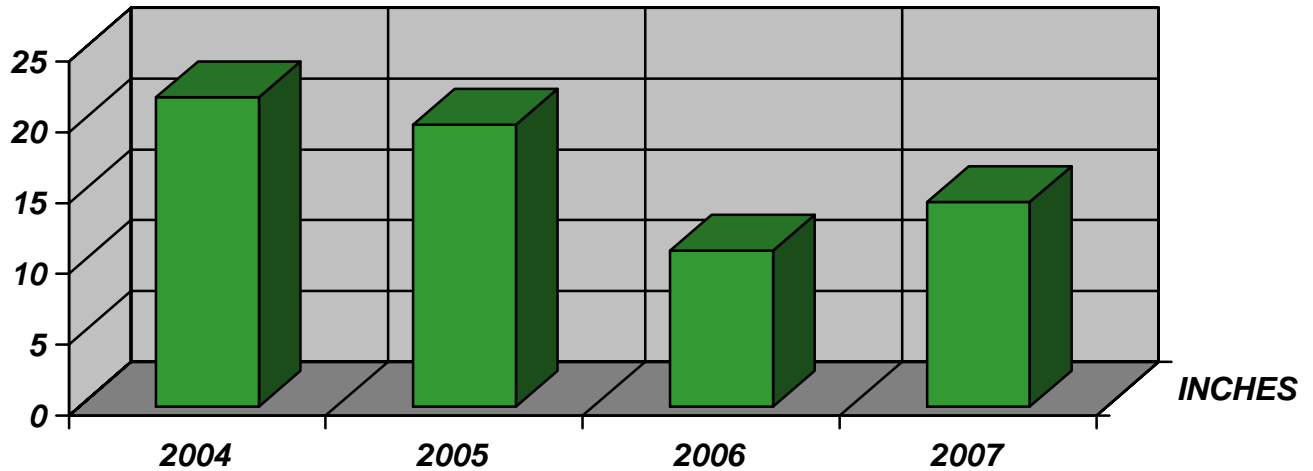
2004 rainfall amounted to 21.85 inches

2005 rainfall amounted to 19.90 inches

2006 rainfall amounted to 11.03 inches

2007 rainfall amounted to 14.46 inches

RAINFALL AMOUNTS



BIOSOLIDS AND DIGESTERS:



A total of 4,430,000 gallons or 577 dry ton of biosolids were land applied to MPCA approved farm sites in 2007 as compared to 4,450,000 gallons or 559 dry ton in 2006.

The Wastewater Treatment Plant prepares every fall and spring to land apply biosolids that have been generated and stored over the winter and summer seasons. The MPCA land application period for 2007 runs from September 2006 to August 2007. The city reserves approximately 2,200 acres of land to apply this nutrient rich fertilizer and land applies by injecting biosolids with a field tractor and a 5,300 gallon honeywagon. The biosolids are transferred to the field by a semi and tanker that can carry 5,000 gallons.

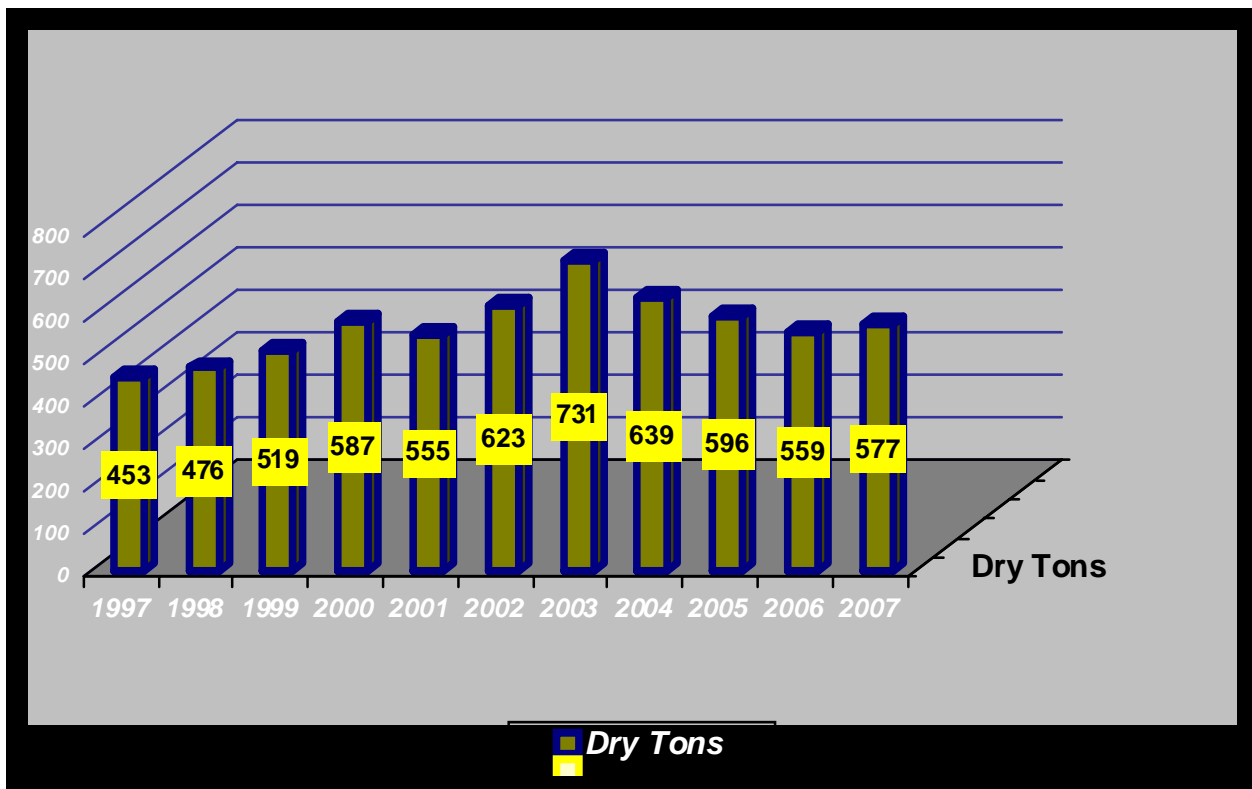
The City nursed biosolids from the plant to the field by the use of two tankers. One is City-owned and the other contracted from a company named Five Star Pumping based out of New London. Dollars spent in 2007 for rental amounted to approximately \$30,464.99 as compared to \$36,394.92 in 2006.

In 2007 (January thru December) the city moved a total of 11,651,800 gallons of biosolids and supernate. About 4,871,800 gallons of bio-solids were transferred from the existing site to storage, approximately 2,605,000 gallons of supernate was brought back from storage to the existing site for treatment and 4.43 Million gallons were land applied. Total cost in 2007 to haul bio-solids and supernate amounted to \$179,115.41

City staff is operating the hauling and land application of bio-solids in a cost-effective manner at \$0.015/gallon. Contract haulers would charge approximately \$0.03/gallon.

BIOSOLIDS (QUANTITY)

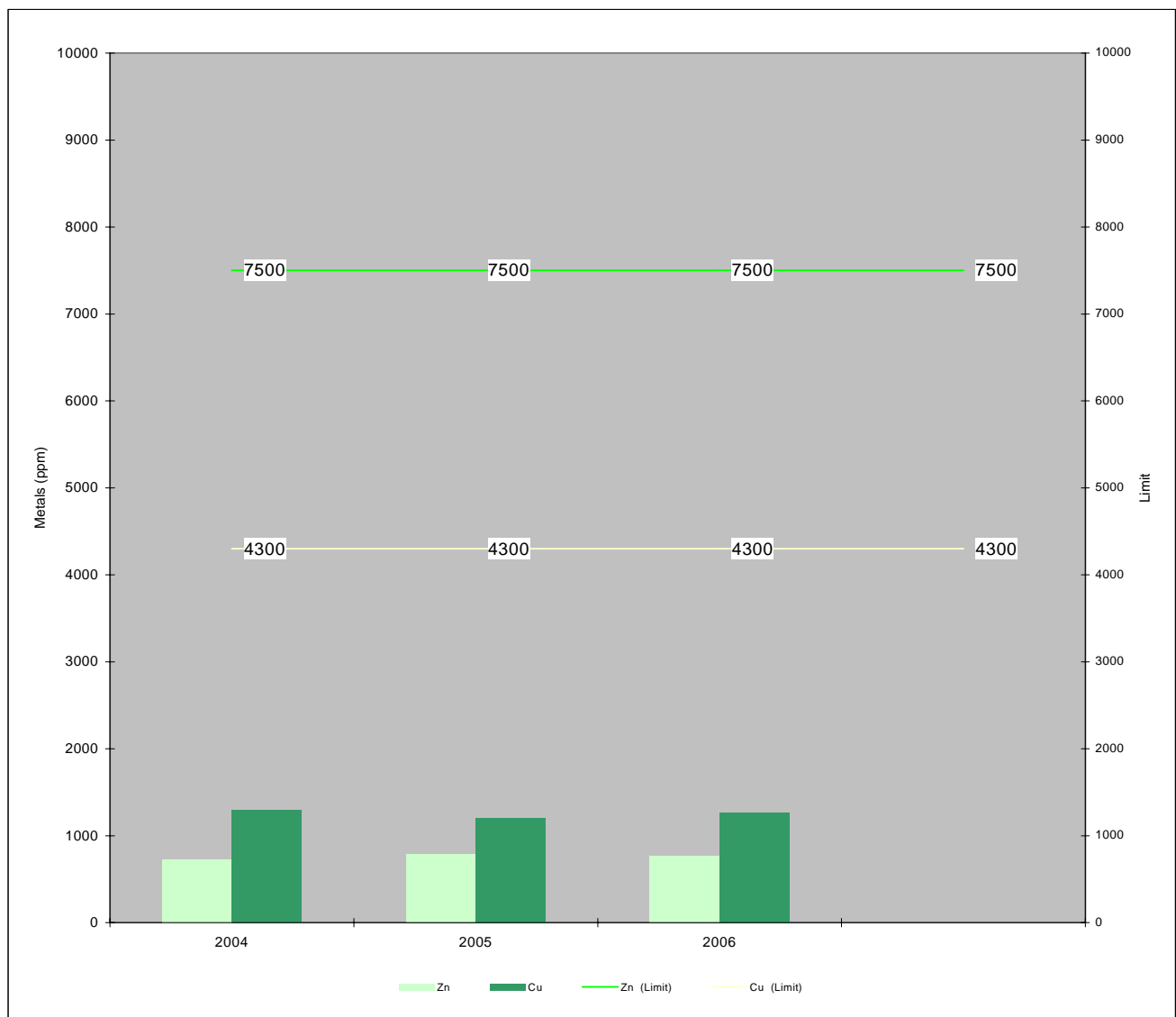
1998	476 dry tons	1739 loads
1999	519 dry tons	827 loads
2000	587 dry tons	920 loads
2001	555 dry tons	722 loads
2002	623 dry tons	817 loads
2003	731 dry tons	1,042 loads
2004	639 dry tons	1,089 loads
2005	596 dry tons	1,026 loads
2006	559 dry tons	890 loads
2007	577 dry tons	886 loads



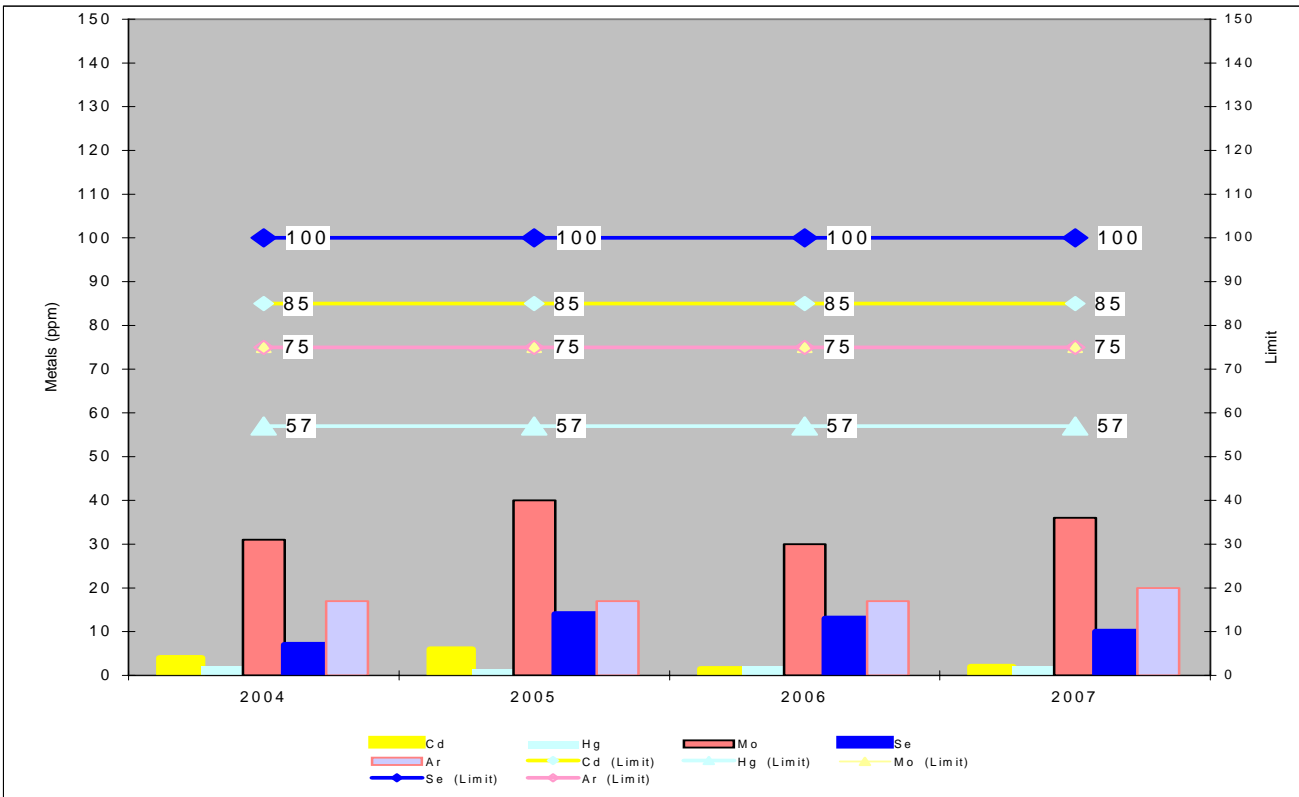
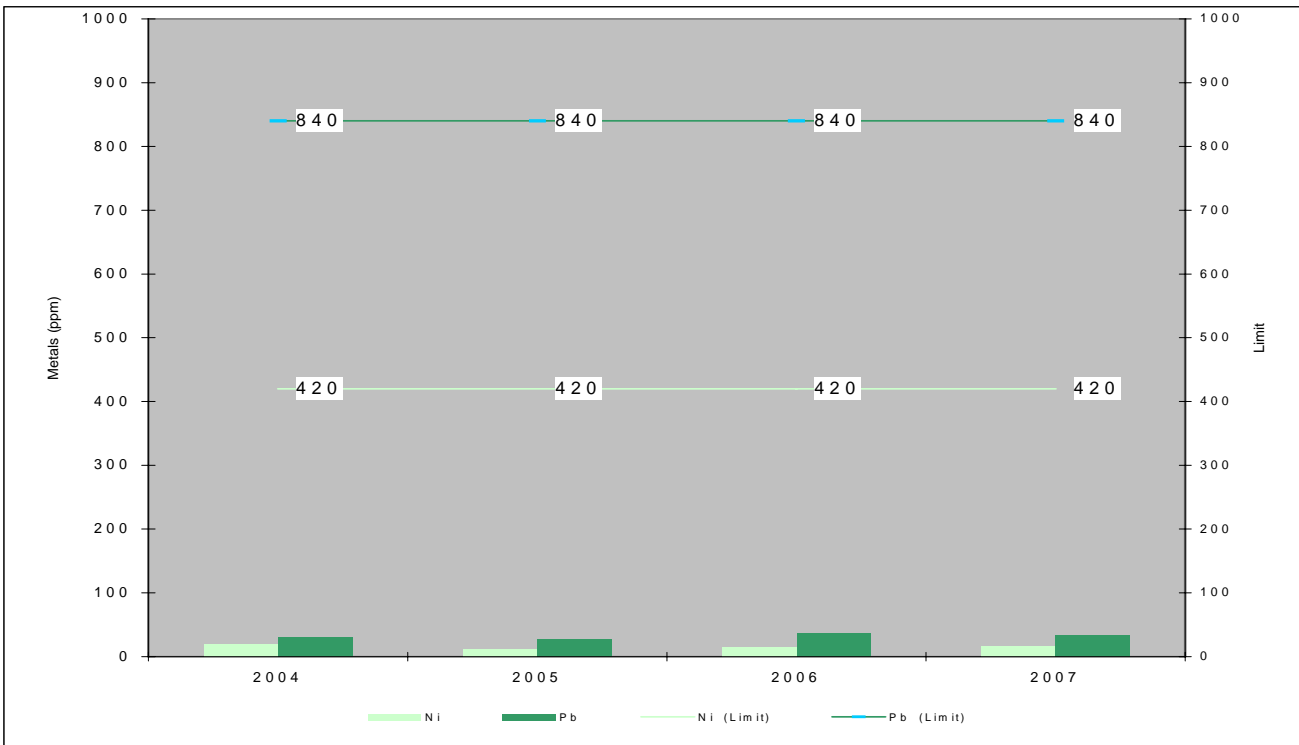
BIOSOLIDS (Metals PPM)

* If any one metal exceeds a ceiling limit then biosolids should not be land applied.

Metal	2004	2005	2006	2007	*Ceiling Limits
Zn	725	725	768	806	7500
Cu	1624	1291	1266	1292	4300
Ni	22	20	15	16	420
Pb	31	31	37	33	840
Cd	0.8	4	1.5	2	85
Hg	2	2	2	2	57
Mo	25	31	30	36	75
Se	7	7	13	10	100
Ar	7	17	17	20	75



BIOSOLIDS (Metals PPM) Cont.



Wastewater Treatment Plant Relocation and Conveyance System Project

Planning Phase

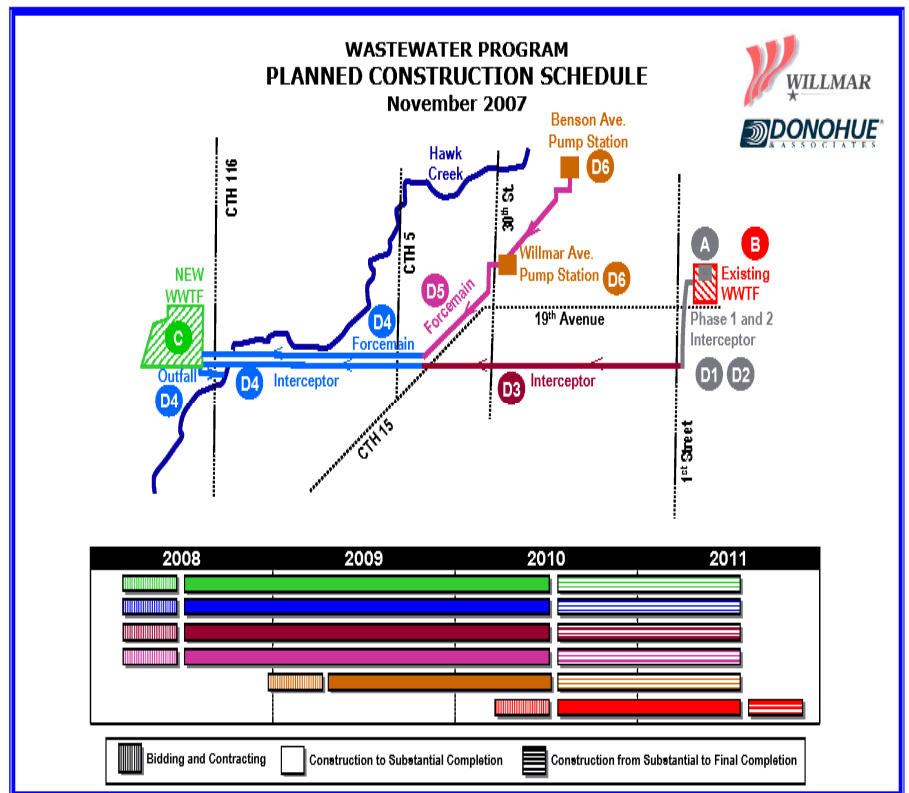
- **Facilities Plan**
 - Prepared in 2005 - 2006
 - Approved by MPCA in June 2006

Design Phase

- **95% Plans and Specs were completed in December, 2007**
- **At MPCA for approval**
- **In Design criteria**
 - Average day flow-5.24 mgd
 - Max day flow-24 mgd
 - TBOD₅ -14,679 ppd
 - TSS-9,621 ppd
 - Phosphorus-567 ppd
 - Nitrogen-2,548 ppd



- **Bidding in May 2008**
 - **Four contracts 2008**
 - New WWTF
 - Interceptor sewer
 - Interceptor/ Force main/ Outfall
 - JOTS Force main
 - **One Contract in 2009**
 - Pump stations
 - **One Contract in 2010**
 - Decommission old WWTF



Construction Phase

- **Phase 2 Southern Interceptor Sewer**
 - 1,800 ft of 48 in. diameter interceptor sewer
 - East of Kandi Mall
 - Brings total installed to 5,000 ft.
- **Existing WWTF Interim Modifications**
 - New 6,000 gpm pump to handle high wet weather flows
 - Increases wet weather capacity of existing WWTF
 - Pump will be moved to new WWTF and re-used



INDUSTRIAL TESTING:

Burlington Northern:

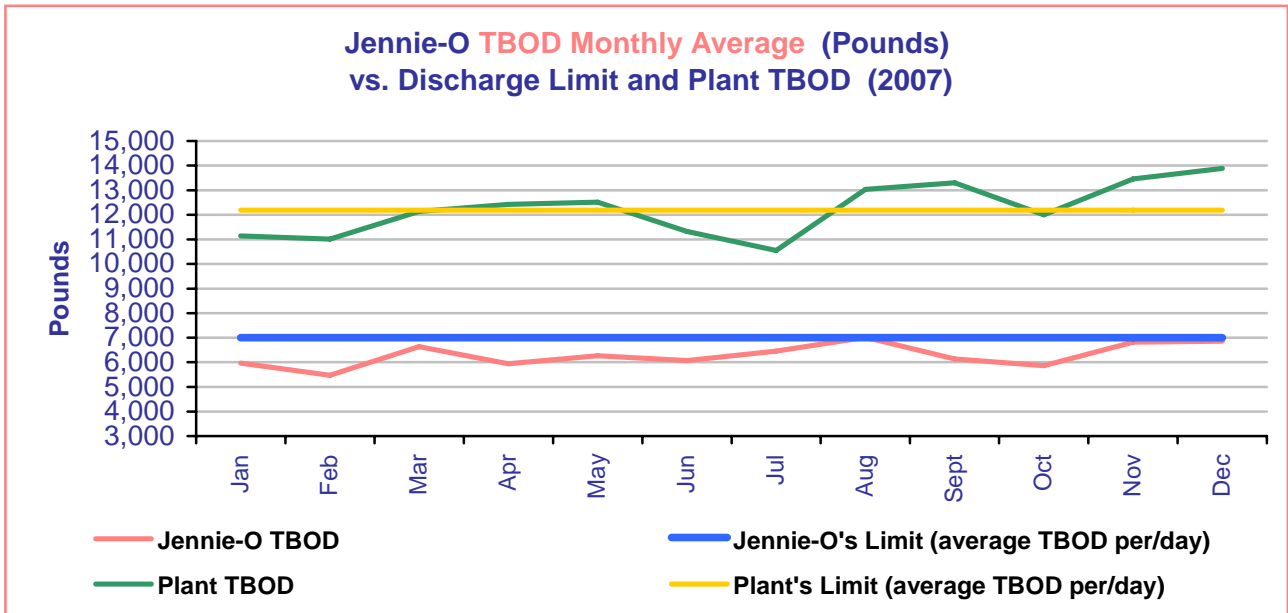
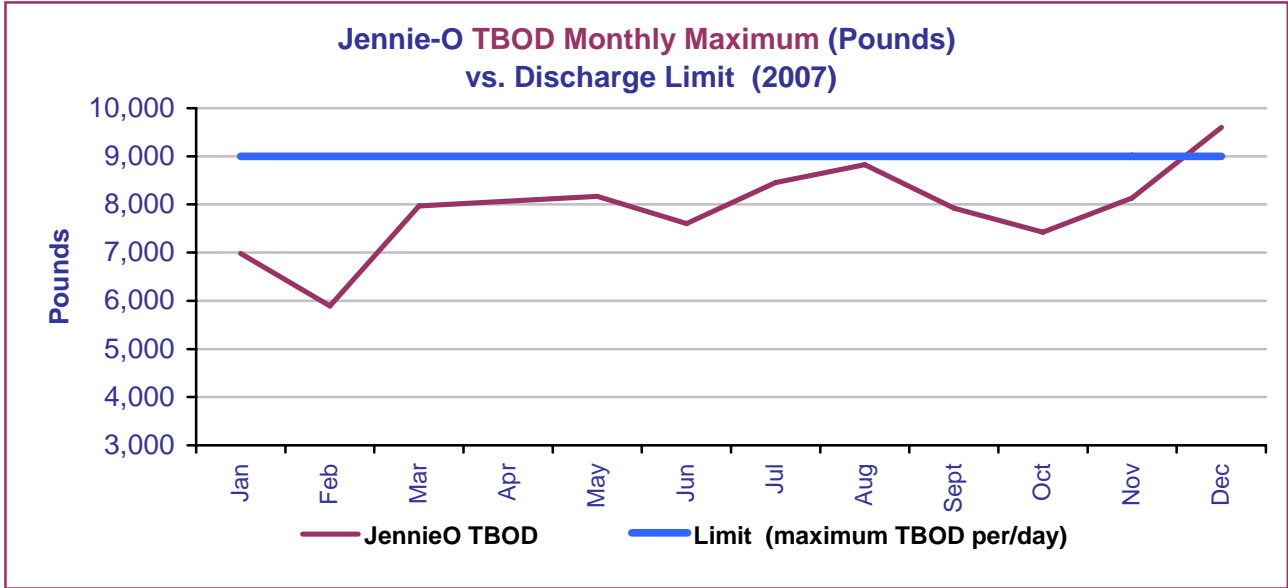
The improvements to the wastewater retention ponds have helped to reduce the amount of storm water to the wastewater treatment plant. It has been estimated that approximately 2,052,052 gallons of B.N. water (industrial) was treated at the Wastewater Treatment Plant in 2007 as compared to 1,459,778 gallons in 2006. This is a 40.5% increase.

Leachate: Due to capacity concerns at the Wastewater Treatment Plant it has been decided to not accept leachate. Accepting leachate at the WWTP will be reconsidered during the WWTP Relocation Project.

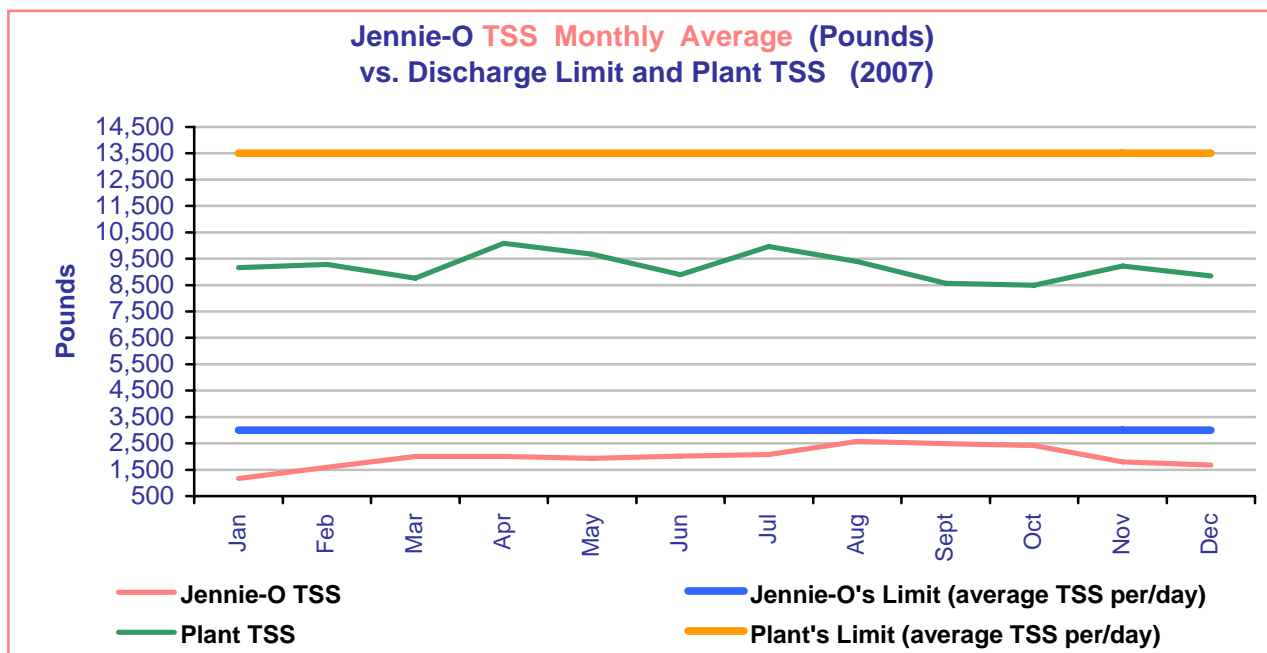
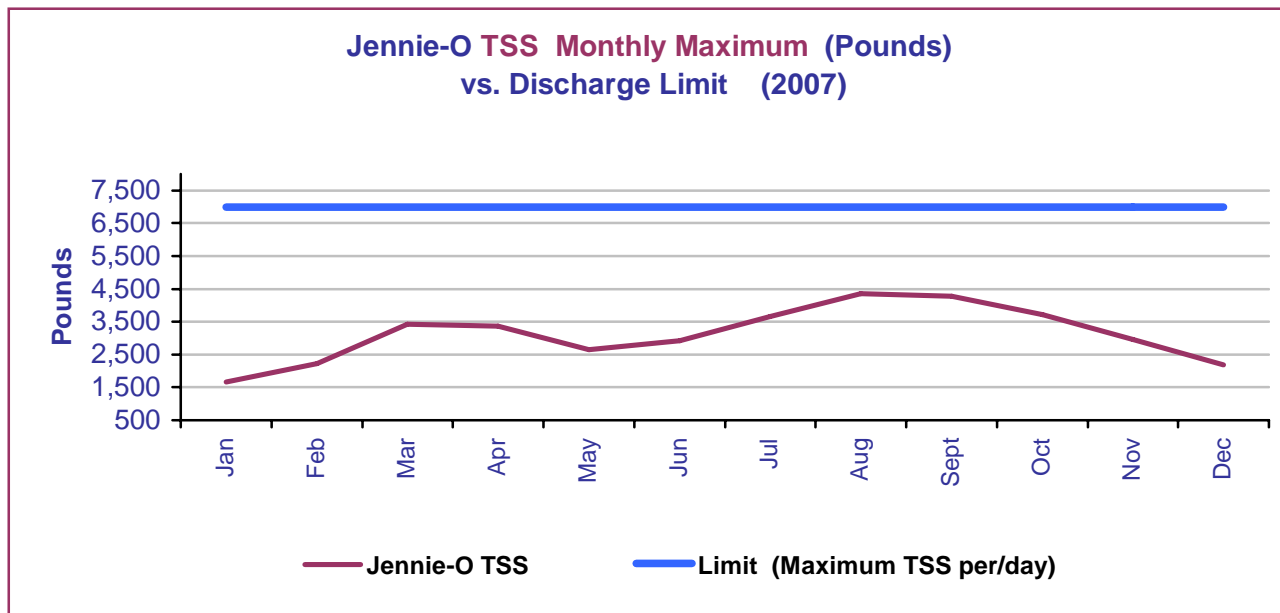
Jennie-O: The City continues to monitor the Benson and Willmar Avenue Jennie-O plants for flow, BOD, TSS and pH. Sample analysis is run twice per week with flow being recorded daily. Grease/oil, sulfate and ammonia nitrogen are analyzed monthly by Minnesota Valley Testing Labs. Phosphorus is analyzed once per week by City staff.

Jennie-O's pretreatment, at the Willmar Avenue Plant, consists of two Dissolved Air Flotation (DAF) chambers which receive raw Jennie-O wastewater from the 330,000 gallon equalization basins. The treatment process of the DAF with the addition of polymer and air causes solids to float. These solids are skimmed off and rendered. As the solids are being drawn off, the liquid portion continues on for biological treatment at the City Wastewater Treatment Plant.

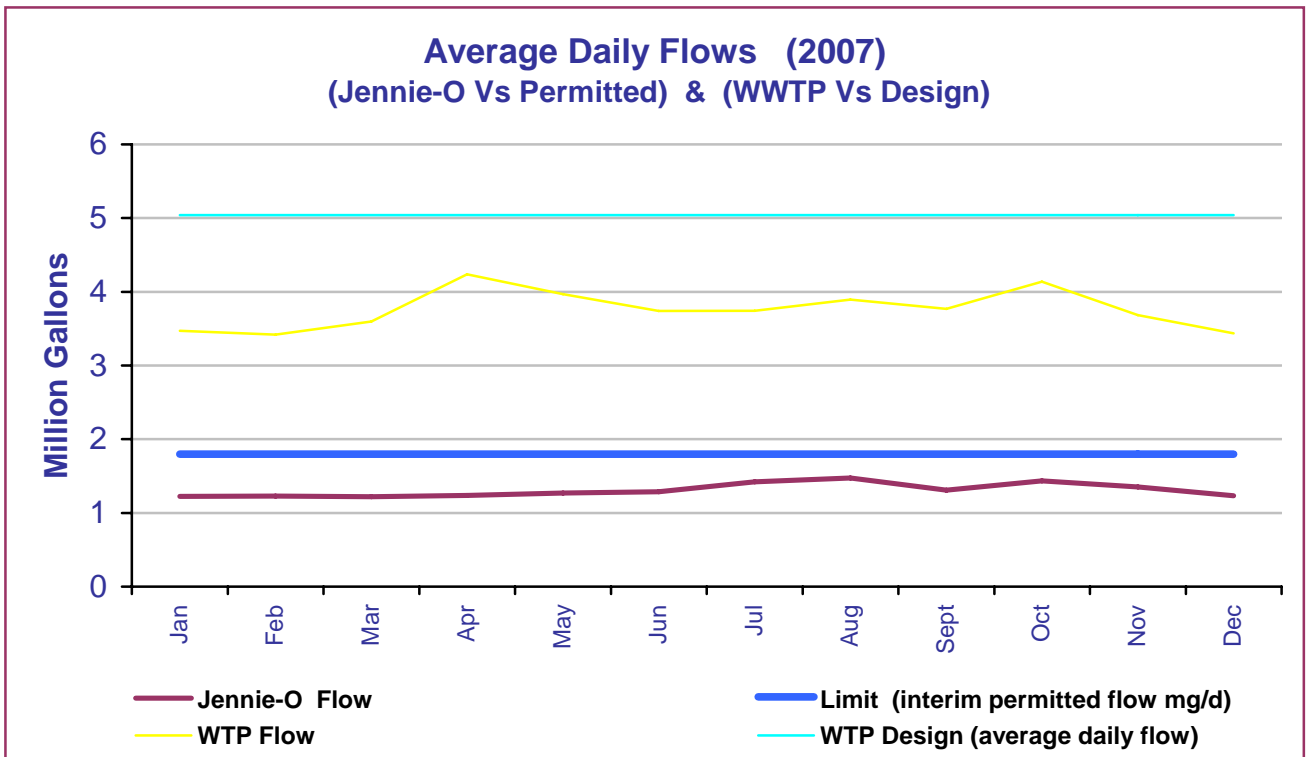
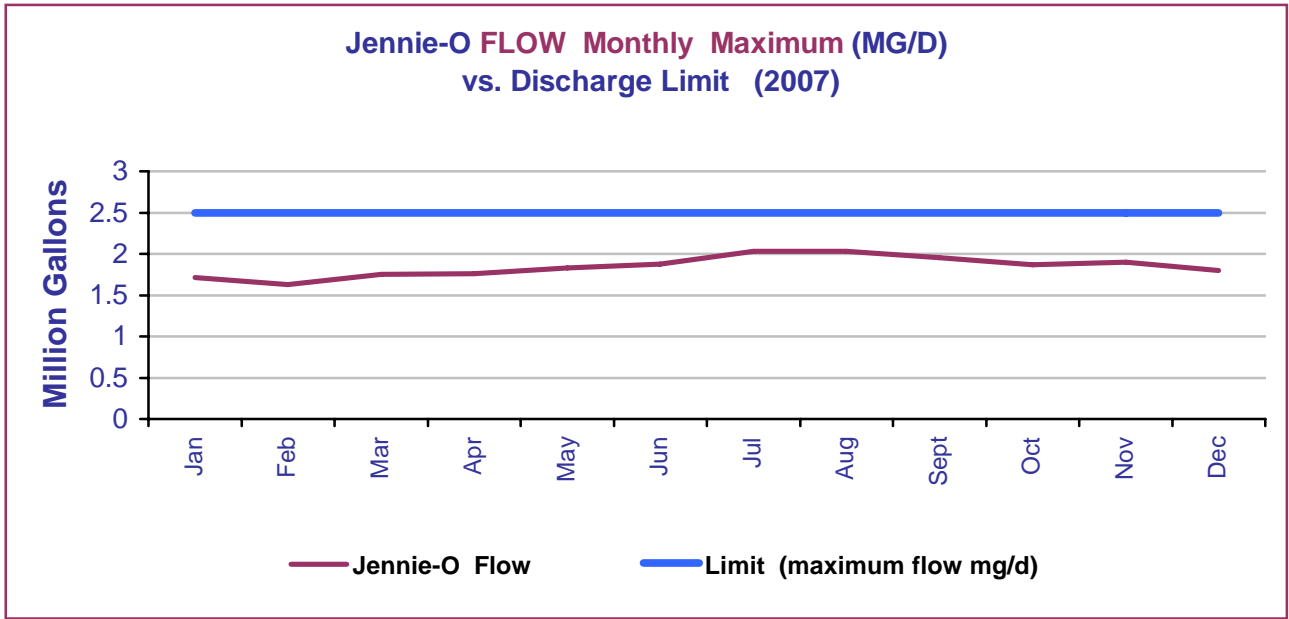
TOTAL BIOLOGICAL OXYGEN DEMAND (TBOD)



TOTAL SUSPENDED SOLIDS (TSS)



FLOW (MILLION GALLONS / DAY)



EDUCATION AND TRAINING:

All employees have attended many training seminars throughout the year for renewal of certificates. All employees are currently certified with a Wastewater Treatment Operator Certificate and Boilers Licenses.

SAFETY PROGRAM:

The Wastewater Treatment Plant conducted monthly safety meetings along with Safety Training Handouts to comply with the State and Federal OSHA guidelines. The topics covered in 2007 included but were not limited to:

- Confined Space Safety Manual Overview
- Fall Protection
- Electrical Safety Accident Prevention
- Chlorine Safety Procedure for changing chlorine heads
- Hazard Communication
 - Compressed Gases
 - Welding, cutting and brazing
- Emergency Action Plan
- Cold Weather – Winter driving
- Machine Guarding

The OSHA style audit had to be rescheduled for 2008.

Auditorium and City Offices

2007 Annual Report

Custodial staff people Roscoe Berg and Betty Swenson continue to be a valuable asset to the City. Along with the day-to-day maintenance duties, they are involved with numerous projects making the buildings and facilities operate smoothly which contributes to a comfortable working environment.

AUDITORIUM:

The Auditorium continues to be the focal facility for the majority of the indoor recreation programs. Facility use is daily, and through the majority of the year, is on a seven day a week schedule. Activities start early with the facility opening on weekdays for morning activities at 7a.m. and continuing often after 10 p.m.

The facility continues to serve the public in a wide variety of opportunities such as: indoor playground, indoor tennis, basketball, volleyball, pre-school programs, senior exercise, morning walkers, pickle ball, tournaments, gymnastics, and crafts. The Auditorium also provides space for groups to meet. It's home to the Golden Gloves boxing, Cardette Danceline and a Hispanic soccer league. The Indoor Range is open Tuesday and Thursday evenings for the public and is also used by law enforcement agencies around the area for training.

Maintenance & Capital Improvements:

- REMOVED LEAD FROM RIFLE RANGE BACKBOARD (2,000 LBS.±)
- CONSTRUCTED STANDARDS FOR PICKLE BALL
- SANDED AND RESEALED GYM FLOOR

CITY HALL

Maintenance & Capital Improvements:

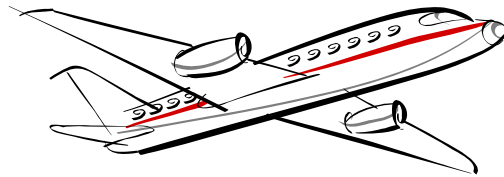
- CONSTRUCTED TWO CONFERENCE TABLES FOR MID MN DEVELOPMENT COMMISSION
- CONSTRUCTED WALL HANGING PICTURE HOLDER FOR MID MN DEVELOPMENT COMMISSION

- CONSTRUCTED TWO CABINETS FOR CONFERENCE ROOMS FOR COMPUTER SYSTEMS
- CONSTRUCTION CABINET FOR BUILDING OFFICIAL
- CONSTRUCTED TABLE FOR TWO-WAY RADIO IN ENGINEERING DEPARTMENT
- PAINTED MID MN DEVELOPMENT COMMISSION
- REPLACED BASEBOARD IN MID MN DEVELOPMENT COMMISSION
- CONSTRUCTED NEW SINK AND CABINET FOR MID MN DEVELOPMENT COMMISSION
- CONSTRUCTED BOOK SHELF FOR MID MN DEVELOPMENT COMMISSION

OTHER CITY BUILDINGS

- CLEANED, WAXED AND SHAMPOOED FLOORS TWICE AT SENIOR CENTER
- CLEANED THE FLOOR WEEKLY AT PUBLIC WORKS GARAGE
- CLEANED AND WAXED THE FLOOR TWICE AT PUBLIC WORKS GARAGE
- STAFF MAINTAINS APPROXIMATELY 65,800 SF OF FLOOR AREA IN CITY BUILDINGS

Willmar Municipal Airport - John L. Rice Field



2007 Annual Report

Staff

Melissa Galvan Airport Manager

Airport Commission

- Mr. Arnold Plowman, Chairman
- Mr. John Lambing, Secretary
- Mr. Jeff Nuytten
- Dr. Steve NedreLOW

Professional Associations

Minnesota Council of Airports Member, Director at Large
American Association of Airport Executives..... Affiliate Member

Governmental Interaction

State of Minnesota MN DOT Office of Aeronautics
United States of America Federal Aviation Administration

Summary

With the new airport officially open an entire calendar year in 2007, airport tenants and users spent months getting used to the new facility. After numerous years at an older site, it took time for everyone to adjust to a new airfield, a new identifier, the new location, etc. However, with all the new quirks and issues discovered throughout the course of the year, the airport still experienced growth. From private hangar development to fuel quantity dispensed to an 18.5% growth in based aircraft, Willmar continues to expand. The airport continues to be a tremendous asset to the community.

One major project was initiated in the summer of 2007 which included widening all the hangar area taxi lanes from 20 feet to 30 feet in width. This contract was awarded to Duinick Bros. Inc at a cost of \$194,287. The project was completed in August. A second project which involved the production of a new 12 unit t-hangar began in the fall of 2007 as well. Breitbach Construction from Elrosa, MN was awarded the contract at a cost of \$530,561. The building was completed by December 1st allowing tenants to move in before winter arrived.



Airport Inventory

Facilities:

- 5,500' x 100' asphalt runway
 - with lighted parallel taxiway
- 3,000' x 250' turf runway
- Private hangar area development
- T-hangar area development
- Concrete apron service area
- Main Terminal Facility
- Fixed Base Operator Building
 - With maintenance shop

Services: (offered through agreement with Fixed Base Operator)

- Aircraft Pilot Services
- Flight Training and Instruction
- Maintenance and Repair
- Weekend and after hour on-call service
- Courtesy Cars for transient pilots
- Aircraft Sales (Lancair Columbia 300 & 400)
- Aviation Fuel
 - 100LL
 - Jet A (over-wing & single point)

Navigational Aids:

- ILS precision approach (Instrument Landing System) to Runway 13
- GPS Non-precision Approach (Global Positioning System) to Runway 31
- GPS Non-precision Approach to Runway 13 with WAAS capability
- VOR Non-precision Approaches (Very-High Frequency Omni-directional Range) to Runway 13 & 31
- AWOS (Automated Weather Observation System)
- Airport Beacon
- Lighted Windsock
- Lighted Airport Directional Signs
- High Intensity Runway Lights (with Pilot controlled lighting)
- Remote Communications Outlet (RCO based at former airfield)

Staffing:

- Full-time Airport Manager
- Public Works Department staff for airfield maintenance

Airport Organizations (Based on the field):

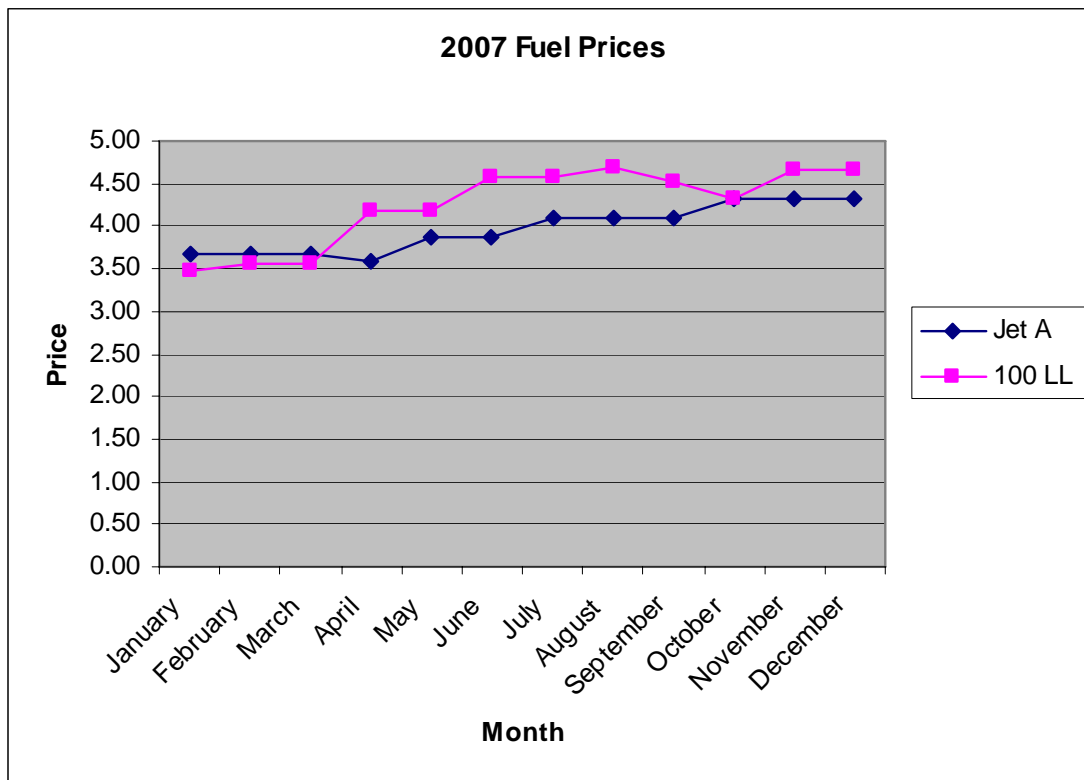
- Willmar Air Service (Full-service Fixed Base Operator)
- Experimental Aircraft Association (EAA)
- Civil Air Patrol (CAP)

Fuel Usage

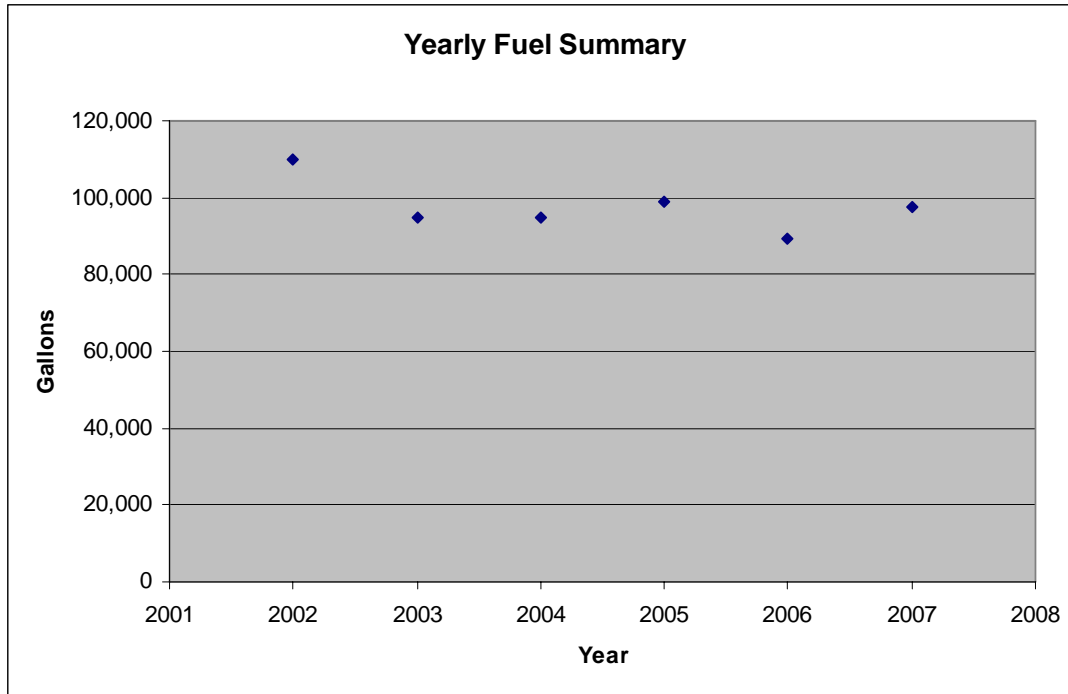
The ability to offer aviation fuel to users has always been a tremendous asset. The City of Willmar owns the fueling system and it is operated through Willmar Air Service, Inc. via an agreement. The City receives \$0.075 per gallon on every fuel transaction which occurs. Fueling personnel are required to perform daily fuel inspections to ensure the equipment is working properly and the integrity of the fuel is maintained.

For the first time in the airport's lengthy history, our fuel system now boasts the capability to fuel Jet aircraft via a single point. Jets that normally passed on purchasing fuel now obtain fuel because the new system is in place. No longer do they have to worry about their paint being scratched as fuel hoses are not dragged over their wings. In designing the fuel system, it was known this would be an asset, but the amount of business it has provided the airport has exceeded expectations.

Fuel prices continue to be a huge concern in the aviation industry. With the average gallon of Jet fuel in 2007 at \$3.97 and 100 LL at \$4.25, it is easy to understand the recreational pilot's hesitation to fly.

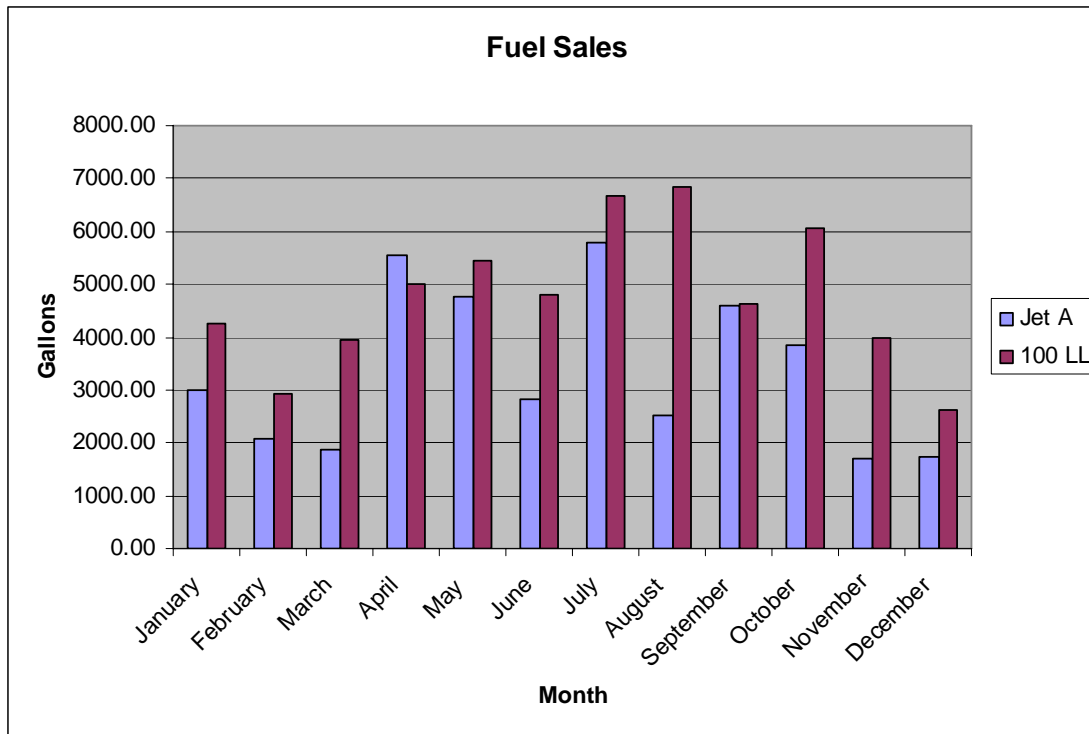


Overall, airport fuel sales are up from 2006, but have not returned to the level they were pre-September 11th, 2001. This can be explained in numerous ways and while disheartening, does not mean fuel sales will not return to above average levels. It is anticipated that the level of growth will correspond directly to what the average price of 100 LL does in the future.



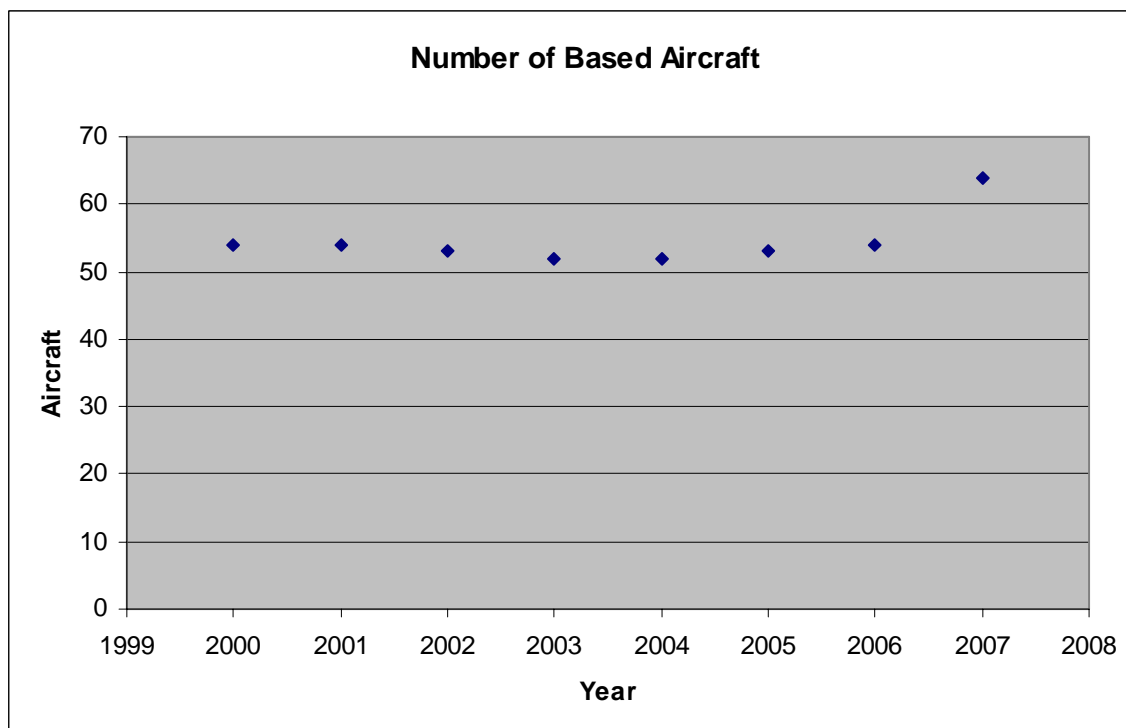
97,527 gallons of fuel were dispensed and sold to customers in 2007. Of this amount, approximately 41% or 40,330 gallons were Jet Fuel with the remaining 58% or 57,197 gallons being 100 LL. Based on the total amount sold, the City received approximately \$7,310 from Willmar Air Service, Inc as part of the aviation fueling contract.

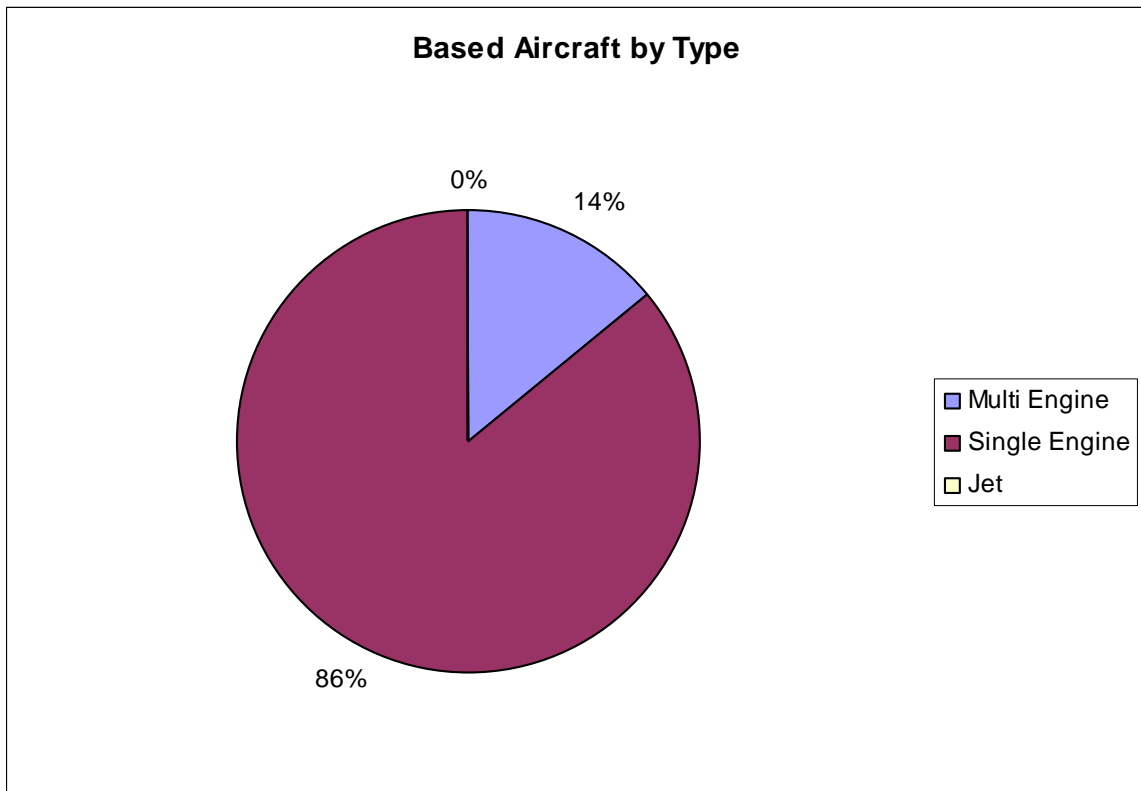
Variations in weather conditions affect how much of each type of fuel is sold every month. Typically 100 LL is dispensed more often as the frequent users of the airport tend to be general aviation aircraft. However, there were several months during 2007 where Jet fuel sales and 100 LL sales were extremely close. If this trend continues, the reality of Jet sales overtaking 100 LL more often is very possible.



Based Aircraft

The new airport saw an influx of based aircraft over the year as additional hangars were constructed. In January there were 54 based aircraft that called the Willmar Municipal Airport home. But by the end of the year, that number had risen to 64. At a time when most airports are struggling to keep their aircraft numbers steady, Willmar has succeeded tremendously. Our base grew by 18.5 with the addition of 10 aircraft.





Activity

Operations for the airport increased slightly to approximately 18,500 up from 2006. Jet traffic increased over the past year to a point where the level of activity exceeded the piston engine traffic for certain months. While this is extremely promising, the level of decline in general aviation traffic is worrisome. With the high cost of fuel as well as rising insurance costs, the recreational general aviation pilot simply is not electing to fly as he or she once did in the past. Those that are flying are choosing their destinations carefully. The "new airport" experience helped draw some general aviation traffic to Willmar. In addition, the F-14 "Tomcat" attracted former military personnel who would not have normally flown to Willmar.

Regional corporations continue to utilize the airfield for not only the long runway, but now for the Instrument Landing System (ILS). Routine users include: Menards, Inc., Hormel Foods, Bemidji Airlines, Target Corporation, and Forum Communications Co. The State of Minnesota as well as all LifeLink III and North Memorial Helicopters can be seen departing the airport frequently as well.

Instrument Approaches

In February of 2007, the new State owned Instrument Landing System (ILS) was officially commissioned. Pilots, who choose to utilize the ILS in inclement weather conditions, are provided with vertical and lateral guidance as they descend into the airfield. The installation of the ILS brings more student pilots training for their

Instrument Rating to Willmar in order to practice the approach. Even pilots practicing as part of recurrent training utilize the new ILS as the signal strength

and guidance provided are extremely reliable and accurate. Aircraft are able to descend to 200' with visibility being $\frac{3}{4}$ of a mile before having to decide whether to land or abort and redirect to another airport.

Open House

On September 2, 2007 the new airport hosted the first “Fly-in/Drive-in Pancake Breakfast and Open House”. Boy Scout Troop 565 served breakfast to over 430 individuals that morning which was a tremendous turn out. The Wesota Squadron of the Civil Air Patrol successfully handled and parked over 40 aircraft. The day would not have been a success had it not been for their help. Other vendors attending the open house included: Duncan Avionics, Cirrus Design Corp., Columbia Aircraft, Wipaire, Inc., Willmar Air Service, Inc., and the Experimental Aircraft Association.

As in past years, Young Eagles Flights were given to children as a way of providing younger generations with an opportunity to learn about aviation. Local pilots volunteered their time and in some cases, their aircraft for the chance to bring youngsters into the world of aviation. Special thanks to all who helped make this first event a huge success.



F-14 "Tomcat"

After nearly 7 years trying to secure an aircraft from the National Museum of Naval Aviation in Pensacola, Florida, the new airport became home to an F-14 "Tomcat" on May 16, 2007. Mr. Patrick Curry, together with City Staff and airport tenants, were able to finance the money needed to transport the derelict aircraft from the Minneapolis/St. Paul International Airport to Willmar. A company from Virginia Beach, VA was hired to remove the engines and miscellaneous parts, disassemble, transport, and then reassemble the aircraft in Willmar. As of now, the aircraft sits on three concrete pads with the wheels tethered to the concrete. The F-14 will undergo a landscaping transformation in 2008 to honor the role it played in history.



The aircraft was able to achieve twice the speed of sound due to its unique swept wing design. It had two Pratt & Whitney engines capable of producing approximately 21,000 lbs of thrust and weighed in at just over 74,000 lbs with all machinery and parts installed. The aircraft's tactical range of 1,000 miles made it the perfect aircraft to fly combat over the Middle East in the Gulf War. Budget cuts and the development of new aircraft necessitated the retirement of the F-14.



This aircraft is on loan from the National
Museum of Naval Aviation in Pensacola, FL.

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