

CITY OF FINDLAY

WATER POLLUTION CONTROL CENTER



2011 ANNUAL REPORT

PROTECTING OUR PRECIOUS RESOURCE

January 23, 2012

Mr. Paul E. Schmelzer, PE, PS
Service/Safety Director
City of Findlay, Ohio

Dear Mr. Schmelzer,

The annual report of operations of the Water Pollution Control Center for the year ending December 31, 2011 is respectfully submitted here in. The year 2011 saw the retirement of Terry Cole as the Sewer Maintenance Supervisor with thirty three years of service to the City. Mr. Cole had an exemplary work ethic and will be sorely missed. I personally want to thank him from his years of service and his assistance as one of my Supervisors at the WPC. I also wish to acknowledge the cooperation within the department and the initiative exhibited by the 15 Water Pollution Control and 12 Sewer Maintenance employees in their outstanding operation and maintenance of the wastewater system throughout the year 2011.

Sincerely,

Randy L. Greeno
WPC Superintendent

The following is a list of all the employees that make the Water Pollution Control Center (WPCC) function at such a high level of professionalism:

Raul Amesquita	Joe Arras
Dave Beach	Seth Cole
Bob Courtney	Dana Cramer
George Elston	Dave Frantz
Joshua Gearing	Dan Gonzalez
Terry Grohoske	Gary Hayden
Dave Holman	Chris Kolhoff
Marge Mize	Tom Moses
Doug Reed	Werner Roesch
Mark Routzon	Jason Sims
Jared Sines	Mark Stears
Mike Stillberger	Brent Vaughan
Todd Ward	Jason Wolfarth
Steve Watkins	

2011 WATER POLLUTION CONTROL CENTER ANNUAL REPORT

The Water Pollution Control Center is comprised of two units, Water Pollution Control and Sewer Maintenance. Each unit is independently operated with separate budgets under the direction of the Superintendent of the Water Pollution Control Center (WPCC).

In the year 2011 the City of Findlay WPCC completed its seventy-ninth year of operation. I am pleased to announce that there were only three violations of the city's NPDES permit during the year.

The Water Pollution Control Center treated 5.193 billion gallons of sewage in 2011 which was up from 2010's total of 3.469 billion gallons. The daily total for sewage treated was 14.215 million gallons per day in 2011 up from 2010's daily average of 9.495 million gallons per day.

A major improvement project which started in late fall of 2010 at the WPC with the addition of six new grinder pumps which were to replace the existing channel grinder and the current six influent pumps continued throughout 2011. The grinder pumps were installed but could not meet the flow requirements so another pump vendor had to be chosen. The current style of raw sewage pumps meet the flow requirements but have another issue that has to be worked out before the pumps can be accepted.

Another project started in spring to replace four failed sluice gates at the Bright Road Pump Station and the Influent Pump Station with new stainless steel gates. The work was completed by early summer at the Bright Road Pump Station (three gates replaced) and the gate replacement at the Influent Pump Station had to be put on hold until the pump replacement project is completed.

In late 2011 the City of Findlay WPC had the opportunity to partner with Marathon Petroleum on a solar array project located at the WPC facility. Preliminary engineering had begun and solar panel equipment was on site by the end of 2011. Marathon hopes to have this project up and running by late summer 2012. All energy produced through this solar panel system will be used by the WPC to help cut electrical costs at the facility.

The City of Findlay continued to work on the Long Term Control Plan for Combined Sewer Overflows and reducing the frequency of these overflows. The long term goal is to close down as many CSO discharge points as possible and the Sewer Maintenance Department permanently closed down two CSO discharge points in the City in 2011. These discharge points have shown no activity of overflowing in the last several years. The sewer lining program continues to move forward, with the lining of 5,202 feet of sewer in 2011. Chemical root treatment was conducted on 5,794 feet of sewer during 2011. The Public Works department removed 924.44 tons of debris from the streets in 2011, thus preventing this pollution from entering into the storm sewer system and then into the receiving streams.

The WPC partnered with City of Findlay Health Department, Hancock County Board of Alcohol, Drug Addiction and Mental Health Services, The University of Findlay, Findlay Police Department and Rader Environment Services for two prescription drug/mercury collection days. These days allowed the citizens of Findlay and Hancock County to dispose of their unwanted prescription drugs properly instead of flushing them down their toilets. Both collections were highly successful in collecting and disposing of thousands of units. These collections also brought in 51 mercury thermometers and 8 mercury switches. With the continued success of these collections, two more are scheduled for April and October 2012. As these collections evolve the request for permanent collections locations became more in demand by the citizens of Findlay. Thus the collection committee of the drug task force got permission from the DEA for two permanent sites. A grant was received for the purchase of two drug collection boxes and they were installed at the Police Department in the City of Findlay Municipal

building and at the Hancock County Sherriff's office. Collections have been brisk since the installation on the first of November.

In 2011 the City of Findlay continued to work on its Storm Water Management Plan. This plan addresses the following six minimum controls which were set forth by the OEPA:

- ◆ Public Education and Outreach
- ◆ Public Participation and Involvement
- ◆ Illicit Discharge Detection and Elimination
- ◆ Construction Site Runoff Control
- ◆ Post Construction Storm Water Management
- ◆ Pollution Prevention and Good Housekeeping

Each of these controls must have BMPs (Best Management Practices) or activities which have measurable goals. Each of these goals must have an implementation schedule to track the progress of the activities that are being achieved. Two of the most noticeable activities for 2011 were the distribution of storm water pollution fliers in the water and sewer bills and the continued growth of the SWAC (Storm Water Advisory Committee) which will assist the City in policy changes needed for the implementation of the Storm Water Management Plan. The SWAC is too met on a quarterly basis to discuss various items related to Storm Water management.

The WPCCC staff continues to present storm water programs and tours for school age kids. These programs focused on pollution prevention and ways that we can keep our storm water system cleaner and how kids can help around their houses to achieve this goal.

Citizen volunteer groups, University of Findlay students and members of the Blanchard River Watershed Partnership performed several river clean-ups throughout 2011. The clean-ups were highly successful with the volunteers removing several hundred car and trucks tires along with miscellaneous items which weighed in at well over a ton. These clean-ups were conducted in a stretch of the river just west of the old Liberty street dam to west of I-75.

Laboratory testing, to assure compliance with the NPDES permit limits, is performed at the WPCC and several outside laboratories. Two full-time laboratory technicians are required to monitor the specified parameters. It should be noted that the WPCC laboratory received an acceptable rating on all parameters that were tested for pertaining to the annual DMR-QA (Discharge Monitoring Report & Quality Assurance) study. This study involves purchasing samples with unknown values and running the tests through our lab. The results are then sent back to the company for evaluation and the evaluation is then forwarded to the USEPA.

The WPCC is well staffed with the following 14 employees, licensed by the Ohio Environmental Protection Agency;

Waste Water Operator Licenses:

Randy Greeno	Class 4	Dave Beach	Class 3
David Frantz	Class 3	Mark Stears	Class 3
Raul Amesquita	Class 3	Jason Wolfarth	Class 3
Seth Cole	Class 3	Werner Roesch	Class 2
Josh Gearing	Class 1	Jason Sims	Class 1

Waste Water Collection Licenses:

Robert Courtney	Class 1	Chris Kolhoff	Class 1
Mark Routzon	Class 1	Mike Stillberger	Class 1

The WPCC has an approved Ohio Environmental Protection Agency Sludge Management Plan and continues to meet all state and federal regulatory requirements for disposal in a landfill. The wastewater biosolids (sludge) generated at the WPC is conditioned on four belt filter presses located in the Solids Processing Building. 1803.55 dry tons of biosolids were treated and disposed of at the Hancock County Landfill in 2011. This treatment resulted in an average of 11.28 dry tons per day of operation of the belt filter presses.

The Water Pollution Control Center has an approved Ohio Environmental Protection Agency Industrial Pretreatment Program. The Water Pollution Control Center is the legal authority responsible for the management, testing and record keeping of the program. Audits of the program and industrial files are performed annually by the Northwest District Office of the Ohio EPA and tri-annually by the State Office of the Ohio EPA. Inspection reports from all EPA agencies have been above average and the City of Findlay is meeting all federal requirements at this time.

The City of Findlay pretreatment program has continued the excellent cooperative spirit with local industries toward successful pretreatment of their individual discharges. At present, all industrial dischargers are in compliance with current regulations and continued cooperation is anticipated.

On September 19, 1934 the Sewage Treatment Works became a National Weather Service station for the City of Findlay and that tradition continues today at the Water Pollution Control Center. Weather records are on file dating back to 1894 for temperature, precipitation amounts, wind direction and sky conditions. Flood information is supplied to the news media when river levels pose a threat to the community. The Blanchard River exceeded flood stage seven times during the year with the highest being March 1st at 16.42 feet which was 5.42 feet above flood stage.

On February 10th, the City of Findlay recorded 5 degrees below zero as the lowest temperature of the year. The highest temperature of the year was recorded on July 21st when the mercury reached 97 degrees. The year 2011 recorded a total of twenty six days at 90° or above compared to twenty days in 2010 and six days in 2009. The year 2011 recorded two days at 0° or below which compares to no days below zero in 2010. During the year of 2011, one high temperature record was broken or tied and no low temperature records were broken or tied.

These records can be found on the Temperature and Precipitation Data sheet included in this annual report. The historical record low temperature of -21° was recorded on January 13, 1912 and February 20, 1929. The highest temperature on record was 109° recorded on July 24, 1934.

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Total precipitation for 2011 was 54.47 inches, which was 18.44 inches above the one-hundred seventeen year average of 36.03 inches. This annual total was the all time wettest year recorded breaking the old record set in 1972 of 49.35" by 5.12". September had the greatest amount of monthly precipitation at 7.52 inches and the month of January the least at 1.22 inches. The month of May recorded 7.39 inches of precipitation which was the fourth wettest may in history with the all time wettest may being in 1997 at 9.46 inches. December also had the distinction of being the fourth wettest with 4.22 inches with the all time record December being in 1990 with 7.36 inches. May 25th recorded the largest single day rainfall at 2.36 inches. The following are all days in 2011 that one inch or more of rainfall was recorded in a 24 hours period:

May 25 th	2.36"
July 18 th	2.34"
October 19 th	1.98"
September 26 th	1.96"
February 28 th	1.69"
November 29 th	1.56"
August 24 th	1.50"
September 7 th	1.40"
August 6 th	1.40"
December 5 th	1.39"
April 25 th	1.20"
November 14 th	1.15"
November 22 nd	1.13"

The WPC recorded 202 days with precipitation which accounts for 55.3% of the days in 2011 out of those 202 days 151 days or 74.8% had measurable amounts of precipitation of more than 0.01".

The year 2011 recorded a total snowfall of 32.1 inches of snowfall, which is 5.6 inches above the average. The month of January was the snowiest month with 7.7 inches recorded.

2011

TEMPERATURE AND PRECIPITATION

MONTH	TEMPERATURE				PRECIPITATION			
	AVERAGE MAXIMUM°		AVERAGE MINIMUM °		TOTAL "		SNOWFALL "	
	2010	2011	2010	2011	2010	2011	2010	2011
JANUARY	29.2	28.3	18.2	14.5	0.89	1.22	4.8	9.3
FEBRUARY	30.9	34.9	19.6	19.8	1.60	4.32	12.6	16.2
MARCH	51.1	45.6	31.1	28.9	2.35	2.89	0.5	3.2
APRIL	67.3	59.5	43.7	40.2	3.18	5.47		T
MAY	73.9	71.2	54.0	52.9	6.45	7.39		
JUNE	82.2	81.8	63.8	61.6	5.20	1.83		
JULY	87.0	89.4	66.3	68.7	2.07	4.85		
AUGUST	84.8	81.8	65.1	62.0	3.04	5.29		
SEPTEMBER	77.5	71.4	55.2	53.7	1.17	7.52		
OCTOBER	66.5	63.2	44.5	43.8	1.48	4.00		
NOVEMBER	53.2	54.5	30.8	37.5	4.15	5.47	T	0.4
DECEMBER	30.2	41.8	18.1	29.1	0.70	4.22	2.7	3.0
TOTAL					32.28	54.47	20.6	32.1
AVERAGE	61.2	60.3	42.5	42.7				
HISTORIC AVERAGE						36.03		26.5

NEW TEMPERATURE RECORDS:

April 10(tied)

83 Record

1930

83

2011

ANNUAL SUMMARY OF OPERATIONS

REMOVAL OF SUSPENDED SOLIDS	
2011 RAW TO FINAL	2010 RAW TO FINAL
98.2%	98.5%

REMOVAL OF 5-DAY C.B.O.D. <small>(Carbonaceous Biochemical Oxygen Demand)</small>	
2011 RAW TO FINAL	2010 RAW TO FINAL
98.1%	98.5%

REMOVAL OF AMMONIA	
2011 RAW TO FINAL	2010 RAW TO FINAL
99.3%	99.4%

REMOVAL OF TOTAL PHOSPHORUS	
2011 RAW TO FINAL	2010 RAW TO FINAL
86.6%	90.8%

COST OF OPERATION		
	2011	2010
PAYROLL & BENEFITS	\$ 1,300,395	\$ 1,249,784
UTILITIES (electric, water & sewage)	\$ 540,321	\$ 452,745
CHEMICALS	\$ 66,219	\$ 53,076
EQUIPMENT MAINTENANCE	\$ 170,581	\$ 81,143
MISCELLANEOUS	\$ 202,270	\$ 215,769
CAPITAL EQUIPMENT	\$ 44,700	\$ 473,458
TOTAL	\$ 2,324,423	\$ 2,525,975
COST PER MILLION GALLONS	\$ 448	\$ 728

2011

ANNUAL SUMMARY OF OPERATIONS

MONTH	FLOW		
	(Million Gallons)		
	TOTAL	AVG/DAY	PEAK
JANUARY	236.413	7.626	13.620
FEBRUARY	349.503	12.482	33.036
MARCH	625.038	20.163	34.361
APRIL	497.457	16.582	30.295
MAY	571.448	18.434	30.937
JUNE	292.172	9.739	16.208
JULY	284.142	9.166	20.921
AUGUST	314.246	10.137	20.004
SEPTEMBER	427.165	14.239	28.131
OCTOBER	460.119	14.843	30.620
NOVEMBER	489.791	16.326	36.372
DECEMBER	646.240	20.846	33.516
2011 TOTAL	5,193.734		
2011 AVERAGE	432.811	14.215	27.335
2010 TOTAL	3,468.602		
2010 AVERAGE	289.050	9.495	17.465

2011

ANNUAL SUMMARY OF OPERATIONS

MONTH	SUSPENDED SOLIDS MG/L		5-DAY CBOD MG/L		AMMONIA MG/L		
	RAW	FINAL	RAW	FINAL	RAW	FINAL	
JANUARY	148	1.76	165	2.19	18.7	<0.10	
FEBRUARY	172	2.75	149	2.50	15.5	<0.10	
MARCH	94	9.17	79	2.36	10.4	<0.10	
APRIL	94	2.43	92	1.57	11.7	<0.10	
MAY	83	1.50	80	1.24	10.0	<0.10	
JUNE	111	1.68	113	2.54	14.8	<0.10	
JULY	129	1.90	124	1.71	18.3	<0.10	
AUGUST	124	1.74	124	1.52	16.0	<0.10	
SEPTEMBER	123	1.73	104	1.30	12.7	<0.10	
OCTOBER	114	1.57	105	1.43	12.4	<0.10	
NOVEMBER	98	1.50	94	1.60	12.1	<0.10	
DECEMBER	59	1.68	82	1.27	10.1	<0.10	
NPDES LIMIT (SUMMER)	5/01-10/31	14	N/A	10	N/A	1.4	
NPDES LIMIT (WINTER)	11/01-4/30	18	N/A	13	N/A	4.2	
2011 AVERAGE		112	2	109	2	13.6	<0.10
2010 AVERAGE		136	2	141	2	16.6	<0.10

2011

ANNUAL SUMMARY OF OPERATIONS

MONTH	TOTAL PHOSPHORUS		COD	E. COLI
	MG/L		MG/L	#/100ML
	RAW	FINAL	FINAL	FINAL
JANUARY	4.3	0.15	32	
FEBRUARY	4.1	0.19	16	
MARCH	2.1	0.17	30	
APRIL	2.6	0.14	12	
MAY	2.0	0.15	10	199
JUNE	2.9	0.43	15	241
JULY	3.2	0.57	16	213
AUGUST	3.2	0.83	15	60
SEPTEMBER	2.9	0.65	6	34
OCTOBER	2.7	0.57	7	30
NOVEMBER	2.4	0.49	10	
DECEMBER	1.9	0.36	8	
NPDES LIMIT	N/A	1.00	N/A	#/100ML
2011 AVERAGE	2.9	0.39	15	130
2010 AVERAGE	3.8	0.35	20	
2009 AVERAGE	3.8	0.24	15	

2011

ANNUAL SUMMARY OF OPERATIONS

MONTH	DISSOLVED OXYGEN (PPM)		
	FINAL EFFLUENT	BLANCHARD RIVER ABOVE	BLANCHARD RIVER BELOW
JANUARY	9.2	12.6	12.6
FEBRUARY	9.3	12.8	11.4
MARCH	9.4	12.4	12.1
APRIL	8.9	12.2	12.0
MAY	8.2	10.3	10.2
JUNE	8.1	8.1	7.8
JULY	8.1	11.1	8.4
AUGUST	8.2	7.4	7.4
SEPTEMBER	8.2	7.8	7.7
OCTOBER	8.2	9.9	9.8
NOVEMBER	8.6	10.4	10.3
DECEMBER	8.8	11.2	10.4
NPDES PERMIT (SUMMER) 5/01-10/31	6.7		
NPDES PERMIT (WINTER) 11/01-4/30	5.3		
2011 AVERAGE	8.6	10.5	10.0
2010 AVERAGE	8.6	9.9	9.2
2009 AVERAGE	8.6	10.4	9.6

2011

SOLIDS PROCESSING ANNUAL REPORT

MONTH	OPERATING HOURS				TOTAL OPERATING HOURS	AVERAGE COST \$/TON	POLYMER COST TOTAL,\$	POLYMER USAGE GALLONS	AVG.SOLIDS CAPTURE %
	1	2	3	4					
JANUARY	95.50	24.25	121.50	113.50	354.75	18.79	2,485.65	214.28	98
FEBRUARY		108.75	102.50	95.75	307.00	17.03	2,102.50	181.25	97
MARCH		164.25	154.00	149.25	467.50	15.97	3,303.66	284.80	98
APRIL	89.75	110.50	119.00	48.75	368.00	16.38	2,707.21	233.38	98
MAY	145.75	96.00	132.75	0	374.50	17.24	2,735.74	235.84	98
JUNE	150.50	28.25	153.75	0	332.50	19.39	2,540.63	219.02	99
JULY	135.00	133.75	76.00	0	344.75	18.83	2,646.77	228.17	99
AUGUST	123.50	118.75	0	98.00	340.25	18.03	2,622.99	226.12	98
SEPTEMBER	104.25	99.50	0	93.50	297.25	17.74	2,297.49	198.06	99
OCTOBER	134.00	29.50	93.50	122.00	379.00	18.17	2,935.50	253.06	99
NOVEMBER	138.25	0	131.75	125.75	395.75	18.31	3,063.21	264.07	99
DECEMBER	129.25	0	121.25	117.50	368.00	17.70	2,848.61	245.57	99
TOTAL	1245.75	913.50	1206.00	964.00	4429.25		32,289.96	2,783.62	
AVERAGE					369.10	17.80	2,690.83	231.97	98

Polymer \$11.60/gallon

2011

SOLIDS PROCESSING ANNUAL REPORT

MONTH	TOTAL SLUDGE DEWATER & SUPNT. GALLONS	DEWATERED SLUDGE GALLONS	SUPERNANT GALLONS	DEWATERED SLUDGE DRY TONS	AVG. SOLIDS	
					FEED %	CAKE %
JANUARY	7,086,343	4,391,715	2,694,628	193.73	0.81	13.9
FEBRUARY	5,811,893	3,609,500	2,202,393	124.02	0.93	14.6
MARCH	7,445,930	5,196,325	2,249,605	210.65	1.08	17.4
APRIL	6,572,760	4,356,644	2,216,116	166.44	1.01	16.1
MAY	5,392,052	3,804,000	1,588,052	159.54	1.08	17.5
JUNE	5,104,947	3,081,550	2,023,397	135.78	1.12	18.1
JULY	5,695,630	3,548,625	2,147,005	138.81	1.05	17.4
AUGUST	5,471,964	3,464,600	2,007,364	146.68	1.08	17.1
SEPTEMBER	4,817,927	2,962,275	1,855,652	129.80	1.15	16.7
OCTOBER	5,402,515	3,661,350	1,741,165	159.78	1.14	17.5
NOVEMBER	6,320,803	4,186,072	2,134,731	168.06	1.04	17.0
DECEMBER	6,127,134	3,879,925	2,247,209	161.52	1.07	17.7
TOTAL	71,249,898	46,142,581	25,107,317	1,894.81		
AVERAGE	5,937,492	3,845,215	2,092,276	157.90	1.05	16.8

2011 SEWER MAINTENANCE UNIT ANNUAL REPORT

Sewer Maintenance, a unit of the Water Pollution Control Center, investigated 115 complaints of sewer problems in the year 2011. Of those complaints 7% were due to a problem within the City's sewer system. The remaining 93% of complaints were in the homeowner's sewer. Of those complaints 11% of the 115 calls were received during nonscheduled work hours and required employees to be called in to work.

The Sewer Maintenance Unit, which consists of twelve employees, maintains a sanitary sewer system that reaches far outside the City of Findlay Corporation limits. The sanitary sewer system has over 16,809 customers and is estimated to consist of over 295 miles of sewers and several thousand manholes. The preventive maintenance program conducted by the Sewer Maintenance Unit allows for the cleaning of all City sanitary sewers every eight years and additional cleaning of known areas with historic sewer problems.

During 2011, a total of 36.9 miles of sanitary sewer were cleaned by the Sewer Maintenance Unit. The vactor, (a high-pressure water sewer cleaner and vacuum truck), cleaned 35.0 miles of sanitary sewer. The remaining sewer was cleaned by the bucket machines and a jetter trailer unit. The vactor cleaned various building drains for other City departments, tanks and basins at the Water Pollution Control facility, the City swimming pool, and lift stations wet wells.

In 2011, a private contractor treated 5,794 feet of sanitary sewer for root intrusion. This process involves the spraying of foam on the roots within the sewer system, killing the roots without harming the tree. This process reduces sewer blockages within the lines and cuts down on the frequency that cleaning is required.

The Sewer Maintenance Unit also maintains the storm sewer system, within the City of Findlay Corporation limits. It consists of an unknown number of miles of sewer as well as manholes and approximately 6,400 catch basins. The City's storm water maintenance crew cleaned 1,520 catch basins along with 4,445 feet of storm sewer. A total of 78 catch basins were rebuilt and 158 were repaired in 2011.

The Sewer Maintenance Unit utilizes a self-propelled main line camera; a manhole camera, a lateral inspection camera and a jetter assisted camera in the inspection of sewers and their structures. The self-propelled main line camera was updated in 2009 to provide it with pan & tilt capabilities, which allows it to look up sewer laterals from the main line sewer. In 2011, 2,842 feet of sewer were inspected by the main line camera. The Maintenance Unit also utilizes a lateral camera that allows for the inspection of lines as small as 2 inches. It has also been used to aid the Traffic Unit in locating breaks in their 2 inch electrical conduits. A manhole inspection camera and video recorder allows City employees to safely inspect and record manhole conditions without entering the manhole.

As required by OSHA and the City of Findlay's confined space entry policy, all confined space entries must be documented. During 2011, only 5 entries were required by maintenance personnel to the sewer system. The Sewer Maintenance Unit used a refurbished enclosed trailer to allow all confined space equipment to be readily available at the job site. This reduces entry time and provides a safer entry procedure with all the equipment closely at hand.

The Sewer Maintenance Unit, along with the Water Distribution Department, is required to locate and mark sewers and related structures as part of the Ohio Utilities Protection Service. During 2011 the Sewer Maintenance Unit alone had requests for 5,299 sewer locates. This is down from the high in 2005 of 7,839.

During 2011, the Sewer Maintenance Unit repaired only 1 sanitary sewer pipe and 4 storm sewer pipes, which had either collapsed or were damaged by utilities.

The Sewer Maintenance Unit maintains 13.2 miles of sanitary force mains from pumping station. These force mains are within and outside of the corporation limits. On the force mains there are 32 air pressure relief valves that need maintained or replaced (as needed) on a weekly basis. This will ensure efficient pumping and proper flows from the pumping stations.

The Sewer Maintenance Unit continued installing flap gates on all Combined Sewer Overflows to prevent river water intrusion during flooding condition from backing into the sewer system thus surcharging the sewer system. Additional flap gates are installed on storm sewers to help minimize street flooding during high water levels of the Blanchard River and its tributaries.

The Sewer Maintenance Unit repairs manholes, constructs new manholes, constructs drainage for localized storm water problems, conducts dye tests, conducts flow monitoring with 2 portable flow monitors and maintains a rat control maintenance program in the City sewer system. In addition, the Sewer Maintenance Unit conducts smoke testing on the sewer system to inspect for sources of inflow and infiltration to the sanitary sewer system.

The Sewer Maintenance Unit also assists the Water Pollution Control employees with street closing and barricading during high water events.

In 2008, the Sewer Maintenance Unit began plugging abandon sanitary sewer laterals of properties damaged in the 2007 flood which were demolished by the Findlay Public Works Department, this work still continued in 2011 as two more laterals were plugged and abandoned.

During 2011, approximately 30% of the Sewer Maintenance Unit man-hours were spent maintaining sanitary sewers, 40% on storm sewers and the remaining 30% on building and equipment maintenance, vacation, sick leave, confined space entry training and equipment use and various other safety training.

2011

SEWER MAINTENANCE

ANNUAL REPORT OF OPERATIONS

MONTH	CLEANING						CATCH BASIN REPAIR PATCHED	MANHOLES ADJUSTED	SEWER CALLS	TELEVISED	
	BUCKET		VACTOR			JET				SANITARY	STORM
	SANITARY	STORM	SANITARY	STORM	BASINS	FLUSHING					
	FEET	FEET	FEET	FEET	#	FEET				#	#
JANUARY	3,529	0	705	0	0	0	0/0	0	7	0	0
FEBRUARY	0	0	0	0	0	0	0/0	0	17	0	0
MARCH	3,632	0	11,220	0	0	0	6/0	1	17	590	0
APRIL	2,620	0	8,570	988	70	0	4/7	1	7	0	0
MAY	0	0	18,605	918	180	0	7/11	5	8	0	0
JUNE	0	0	25,700	0	225	0	11/47	2	2	0	0
JULY	0	0	29,100	1,023	115	0	11/24	0	11	0	0
AUGUST	0	0	30,130	30	185	0	26/24	0	14	0	0
SEPTEMBER	0	0	20,230	17	182	0	19/15	1	9	0	0
OCTOBER	0	0	30,793	0	340	0	0/4	1	10	2,245	0
NOVEMBER	0	0	9,398	1,469	117	0	0/17	5	6	0	0
DECEMBER	0	0	453	0	106	0	0/9	0	7	7	0
TOTAL											
2011 TOTAL	9,781	0	184,904	4,445	1,520	0	78/158	16	115	2,842	0
2010 TOTAL	14,203	587	177,075	5,375	1,249	603	61/254	3	83	2,934	38