

January 23, 2008

Mr. Bruce W. Hardy  
Service Director  
City of Findlay, Ohio

Dear Bruce,

The annual report of operations of the Water Pollution Control Center for the year ending December 31, 2007 is respectfully submitted here in. I wish to acknowledge the cooperation within the department and the initiative exhibited by the seventeen (17) Water Pollution Control and fourteen (14) Sewer Maintenance employees in their outstanding operation and maintenance of the wastewater system throughout the year 2007.

Sincerely,

Randy L. Greeno  
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	Terry Boren
Seth Cole	Terry Cole
Bob Courtney	Dana Cramer
Randy Dick	Brad Ehrnschwender
George Elston	Dave Frantz
Joshua Gearing	Dan Gonzalez
Terry Grohoske	Gary Hayden
Dave Holman	Chris Kolhoff
Marge Mize	Tom Moses
Doug Reed	Randy Reeg
Werner Roesch	Mark Routzon
Jason Sims	Mark Stears
Mike Stillberger	Brent Vaughan
Todd Ward	Jason Wolfarth
Steve Watkins	

# 2007 WATER POLLUTION CONTROL CENTER ANNUAL REPORT

The Water Pollution Control Center is comprised of two (2) 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 2007 the City of Findlay WPCC completed its seventy-fifth year of operation. I am pleased to announce that there was only one violation of the city's NPDES permit during the year.

Weather played a big part in the operation of the WPC this Year with the flood of August 22. The WPCC was entirely surrounded with flood waters and water covered all of the asphalt driveways throughout the facility. Employees had to be delivered to work with the assistance of front end loaders because of the depth of the flood waters at Broad Avenue and Howard Street. The WPC maintained operation of all functions until the water level reached the height of the Ultraviolet Light (UV) electrical components and then the UV had to be taken off line. The WPC suffered damage to all five clarifier units during the flood but with the work of the maintenance staff three clarifiers were back up and running in a short time. It was found several days after the flood water had receded that the other two clarifiers had sustained structural damage and would not be able to be operated. The concrete floor of these clarifiers had buckled and needed repaired. The total cost for repairs on the clarifiers and repairs to equipment damaged by the flood amounted to around \$153,000. All repairs were completed by December and the facility is back up to full capacity.

The City of Findlay continued to work on the Long Term Control Plan for Combined Sewer Overflows and reducing the frequency of these overflows. Improvements that were completed this year were the installation of flap-gates on some of the CSO discharges thus reducing the amount of river water intrusion

into the sanitary sewer system. The sewer lining program continues to move forward, with the lining of 5,112 feet of sewer and another 6,137 feet to be completed in early spring of 2008. Chemical root treatment was conducted on 3,348 feet of sewer during 2007.

In 2007 the WPCCC continued the storm water placard program which was started in 2006. This program consists of installing plastic storm water placards on catch basins that warn against disposing of materials down the storm sewer system which discharges directly into receiving streams. The placards were installed by Eagle Scouts, Girl Scout troops, Church groups, University of Findlay students and individual residents. In 2007, 2,335 placards were installed bringing the total for the program to 2,851 thus far. This will be an on going program and volunteers are needed to continue this project (if interested in helping with this project please contact Randy Greeno at [rgreeno@ci.findlay.oh.us](mailto:rgreeno@ci.findlay.oh.us) or 419-424-7187.

The WPCCC staff continues to present storm water programs 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.

The City of Findlay and the Blanchard River Watershed Partnership co-sponsored a river clean-up day on July 28<sup>th</sup>. The clean-up was highly successful with 57 volunteers showing up to help with the clean-up. The volunteers removed 165 car and trucks tires along with items such as toilets, bowling balls, cash registers, multiple car parts, tvs, microwave ovens, shopping carts, beer kegs, strollers and a bed mattress. The one day clean-up removed 6.08 tons of trash from the Blanchard River

Laboratory testing, to assure compliance with the NPDES permit limits, is performed at the WPCCC and several outside laboratories. Two (2) full-time laboratory technicians are required to monitor the specified parameters. It should be noted that the WPCCC laboratory received an approval rating on 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 eight (8) operators, licensed by the Ohio Environmental Protection Agency:

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

It should also be noted that Terry Cole, Supervisor of the Sewer Maintenance Department, has a Class 3 Operator's license.

Four (4) belt filter presses located in the Solids Processing Building thicken wastewater biosolids (sludge) that are generated at the Water Pollution Control. One thousand eight hundred thirty nine (1,839) dry tons of belt filter press biosolids were treated and disposed of at the Hancock County Landfill in 2007. 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 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 pretreatment program has continued the excellent cooperative spirit of 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 the official 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 1890. All temperature, precipitation amounts, wind direction and sky conditions are maintained at the River Road facility. Flood information is supplied to the news media when river levels pose a threat to the community. The Blanchard River exceeded flood stage four times during the year with the highest elevation, measured by the National Weather Service being 7.5 feet above flood stage measuring out at 18.5 feet. This flood stage exceeded the 100 year flood stage of 1913.

On February 5<sup>th</sup>, the City of Findlay recorded four (4) degrees below zero as the lowest temperature of the year. The highest temperature of the year was recorded on July 9<sup>th</sup> when the mercury reached ninety five (95) degrees. The year 2007 recorded a total of twenty (20) days at ninety (90) degrees or above compared to ten (10) days in 2006 and eighteen (18) days in 2005. The year 2007 recorded a total of eight (8) days at zero (0) degrees or below with all days occurring in February. This compares to no days below zero in 2006. During the year of 2007, two (2) high temperature records were broken and no low temperature records were recorded. These records can be found on the Temperature and Precipitation Data sheet included in this annual report. The historical record low temperature of minus twenty-one (-21) degrees was recorded on January 13, 1912 and February 20, 1929. The highest temperature on record was one hundred nine (109) degrees recorded on July 24, 1934.

Total precipitation for 2007 was 42.40 inches, which was 6.55 inches above the one-hundred thirteen (113) year average of 35.85 inches. The month of August accounted for the greatest amount of monthly precipitation at 11.71 inches and the month of February the least at .60 inches. The August total of 11.71 inches was the second wettest month recorded since 1894 with the wettest month being September 1926 at 11.82 inches. August 21<sup>st</sup> recorded the largest single day rainfall at 4.78 inches. The year 2007 recorded a total snowfall of 20.9 inches of snowfall, which is 4.9 inches below the average. The month of December was the snowiest month with 12.6 inches recorded.

# 2007

## TEMPERATURE AND PRECIPITATION

MONTH	TEMPERATURE				PRECIPITATION			
	MAXIMUM °		MINIMUM °		TOTAL "		SNOWFALL "	
	2006	2007	2006	2007	2006	2007	2006	2007
JANUARY	56	58	21	6	2.78	4.78	3.1	0.7
FEBRUARY	60	44	5	-4	1.57	0.60	4.3	5.7
MARCH	69	76	19	11	1.56	3.67	1.3	4.0
APRIL	82	79	28	20	2.67	3.92		1.5
MAY	91	90	40	40	6.46	1.23		
JUNE	89	94	51	50	7.37	0.64		
JULY	94	95	55	52	4.32	4.05		
AUGUST	94	93	55	53	2.38	11.71		
SEPTEMBER	84	90	40	41	3.60	1.95		
OCTOBER	80	90	30	32	4.52	2.16	TRACE	
NOVEMBER	66	65	22	21	3.02	3.41	TRACE	0.1
DECEMBER	58	54	13	6	3.87	4.28	TRACE	12.6
TOTAL					44.12	42.40	8.7	20.9
AVERAGE	77	77	32	27				
HISTORIC AVERAGE						35.85		25.8

### NEW TEMPERATURE RECORDS:

March 26<sup>th</sup>      76°    Old Record    1917/ 1967      67°  
 October 7<sup>th</sup>      89°    Old Record    1900              88°



# 2007

## ANNUAL SUMMARY OF OPERATIONS

<b>REMOVAL OF SUSPENDED SOLIDS</b>	
2007 RAW TO FINAL	2006 RAW TO FINAL
99.2%	98.3%

<b>REMOVAL OF 5-DAY C.B.O.D.</b>	
<small>(Carbonaceous Biochemical Oxygen Demand)</small>	
2007 RAW TO FINAL	2006 RAW TO FINAL
98.4%	99.2%

<b>REMOVAL OF AMMONIA</b>	
2007 RAW TO FINAL	2006 RAW TO FINAL
99.9	99.1%

<b>REMOVAL OF TOTAL PHOSPHORUS</b>	
2007 RAW TO FINAL	2006 RAW TO FINAL
80.0%	77.9%

<b>COST OF OPERATION</b>		
	2007	2006
PAYROLL & BENEFITS	\$ 1,173,957	\$ 1,055,407
UTILITIES (electric, water & sewage)	\$ 386,009	\$ 367,872
CHEMICALS	\$ 58,152	\$ 66,837
EQUIPMENT MAINTENANCE	\$ 91,337	\$ 78,956
MISCELLANEOUS	\$ 407,741	\$ 257,986
<b>TOTAL</b>	<b>\$ 2,117,196</b>	<b>\$ 1,827,058</b>
COST PER MILLION GALLONS	\$ 478	\$ 402

# 2007

## ANNUAL SUMMARY OF OPERATIONS

MONTH	FLOW		
	(Million Gallons)		
	TOTAL	AVG/DAY	PEAK
JANUARY	618.759	19.9600	34.805
FEBRUARY	277.646	9.9159	16.379
MARCH	585.980	18.9026	32.439
APRIL	390.872	13.0291	30.050
MAY	294.231	9.4913	16.084
JUNE	211.937	7.0646	8.635
JULY	238.232	7.6849	15.823
AUGUST	467.794	15.0901	<b>36.248</b>
SEPTEMBER	288.957	9.6319	21.787
OCTOBER	239.137	7.7141	14.962
NOVEMBER	288.802	9.6267	21.254
DECEMBER	531.315	17.1392	31.901
2007 TOTAL	4,433.662		
2007 AVERAGE	369.472	12.104	23.364
2006 TOTAL	4,572.011		
2006 AVERAGE	381.001	12.536	25.639

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## ANNUAL SUMMARY OF OPERATIONS

MONTH	SUSPENDED SOLIDS		5-DAY CBOD		AMMONIA	
	MG/L		MG/L		MG/L	
	RAW	FINAL	RAW	FINAL	RAW	FINAL
JANUARY	99	2	100	1	8.6	<.01
FEBRUARY	148	<1	138	2	12.8	.01
MARCH	119	<1	94	2	7.5	<.01
APRIL	114	1	124	2	11.5	.02
MAY	125	<1	147	2	13.7	<.01
JUNE	155	2	164	2	16.6	<.01
JULY	142	1	155	2	15.7	.01
AUGUST	120	3	113	2	10.9	.01
SEPTEMBER	144	1	145	2	15.5	<.01
OCTOBER	130	1	144	2	18.0	<.01
NOVEMBER	146	3	140	2	15.7	<.01
DECEMBER	89	1	89	2	9.5	<.01
<b>NPDES LIMIT (SUMMER)</b>	<b>5/01-10/31</b>	14	N/A	10	N/A	1.4
<b>NPDES LIMIT (WINTER)</b>	<b>11/01-4/30</b>	18	N/A	13	N/A	4.2
<b>2007 AVERAGE</b>	128	1	129	2	13.0	<0.1
<b>2006 AVERAGE</b>	108	1	130	1	11.2	<.01

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## ANNUAL SUMMARY OF OPERATIONS

MONTH	TOTAL PHOSPHORUS		COD	FECAL COLIFORM
	MG/L		MG/L	#/100ML
	RAW	FINAL	FINAL	FINAL
JANUARY	2.7	0.50	11	
FEBRUARY	4.0	0.79	17	
MARCH	4.0	0.51	14	
APRIL	3.4	0.72	13	
MAY	3.4	0.80	17	6
JUNE	4.3	0.91	18	13
JULY	4.0	0.81	16	30
AUGUST	2.9	0.65	14	40
SEPTEMBER	3.6	0.83	11	18
OCTOBER	4.2	0.86	16	31
NOVEMBER	3.8	0.80	15	
DECEMBER	2.4	0.51	19	
<b>NPDES LIMIT</b>	N/A	1.00	N/A	1000/100ML
<b>2007 AVERAGE</b>	3.6	0.72	15	23
<b>2006 AVERAGE</b>	3.3	0.73	20	4
<b>2005 AVERAGE</b>	3.6	0.70	18	2

# 2007

## ANNUAL SUMMARY OF OPERATIONS

MONTH	DISSOLVED OXYGEN (PPM)		
	FINAL EFFLUENT	BLANCHARD RIVER ABOVE	BLANCHARD RIVER BELOW
JANUARY	8.2	10.8	10.7
FEBRUARY	8.1	FROZEN	14.0
MARCH	8.6	13.4	13.2
APRIL	8.9	9.9	10.1
MAY	8.5	8.9	8.1
JUNE	8.0	16.4	7.3
JULY	7.7	4.1	4.0
AUGUST	7.8	6.3	6.1
SEPTEMBER	8.0	5.3	5.0
OCTOBER	8.9	7.7	6.9
NOVEMBER	8.7	10.1	8.8
DECEMBER	8.8	12.3	12.2
NPDES PERMIT (SUMMER) 5/01-10/31	6.7		
NPDES PERMIT (WINTER) 11/01-4/30	5.3		
2007 AVERAGE	8.4	9.6	8.9
2006 AVERAGE	7.9	10.4	10.1
2005 AVERAGE	7.7	11.3	9.8

# 2007

## 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	141.25	5.25	148.75	144.75	440.00	16.08	2,686.53	244.23	99
FEBRUARY	69.00	0	105.75	90.00	264.75	17.55	1,639.88	149.08	99
MARCH	0	143.25	203.50	200.00	546.75	16.37	3,928.10	357.10	99
APRIL	0	101.25	128.25	135.50	365.00	17.14	2,586.32	235.12	99
MAY	0	169.00	170.75	159.75	499.50	15.99	3,477.21	316.11	99
JUNE	96.75	97.00	103.75	0	297.50	18.18	2,127.18	193.38	99
JULY	8.00	134.50	139.25	119.00	400.75	18.42	2,910.38	264.58	99
AUGUST	49.00	69.25	44.25	97.25	259.75	17.52	1,886.28	171.48	99
SEPTEMBER	0	123.50	128.50	117.00	369.00	16.23	2,673.99	243.09	99
OCTOBER	0	126.25	128.50	119.00	373.75	19.01	2,714.69	246.79	99
NOVEMBER	0	104.25	105.75	100.25	384.50	18.37	2,238.17	203.47	99
DECEMBER	77.50	102.75	103.75	25.00	309.00	16.62	2,219.03	201.73	99
<b>TOTAL</b>	<b>441.50</b>	<b>1176.25</b>	<b>1510.75</b>	<b>1307.50</b>	<b>4510.25</b>		<b>31,087.76</b>	<b>2,826.16</b>	
<b>AVERAGE</b>					<b>375.85</b>	<b>17.29</b>	<b>2,590.64</b>	<b>235.51</b>	<b>99</b>

Polymer \$11.00/gallon

# 2007

## SOLIDS PROCESSING ANNUAL REPORT

MONTH	TOTAL SLUDGE DEWATER & SUPNT. GALLONS	DEWATERED SLUDGE GALLONS	SUPERNANT GALLONS	DEWATERED SLUDGE DRY TONS	AVG. SOLIDS	
					FEED %	CAKE %
JANUARY	5,534,376	4,311,057	1,223,319	169.44	.99	17.5
FEBRUARY	4,104,190	2,846,214	1,257,976	95.11	.87	16.6
MARCH	6,333,984	4,896,876	1,437,108	242.80	1.22	17.0
APRIL	5,151,606	3,434,090	1,717,516	152.30	1.10	16.9
MAY	7,907,603	5,364,955	2,542,648	218.12	1.02	16.6
JUNE	5,109,486	3,398,815	1,710,671	117.94	.90	15.0
JULY	6,564,840	4,640,065	1,924,775	160.25	.92	15.3
AUGUST	4,091,187	2,835,975	1,255,212	111.47	1.04	15.9
SEPTEMBER	5,537,551	3,866,660	1,670,891	165.30	1.07	17.8
OCTOBER	5,879,256	4,022,580	1,856,676	144.90	.91	16.3
NOVEMBER	4,526,493	3,288,612	1,237,881	122.56	.97	15.8
DECEMBER	4,276,255	3,274,085	1,002,170	138.35	1.01	15.9
<b>TOTAL</b>	<b>65,016,827</b>	<b>46,179,984</b>	<b>18,836,843</b>	<b>1,838.54</b>		
<b>AVERAGE</b>	<b>5,418,069</b>	<b>3,848,332</b>	<b>1,569,737</b>	<b>153.21</b>	<b>1.00</b>	<b>16.4</b>