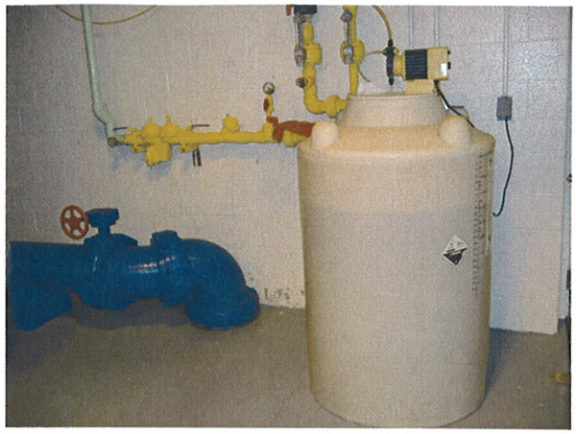

2008

WATER PRODUCTION

REPORT

February 10, 2009

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I. INTRODUCTION/BRIEF HISTORY

This report provides a summary of the operations of the city of Oakwood water system for the year 2008. It includes the following items:

- Water Pumpage Statistics
- Water Monitoring and Testing (OEPA Compliance)
- Water System Maintenance
- Budget Summary

Brief History

Prior to 1954 the city of Oakwood purchased all of its water from outside sources, primarily the city of Dayton. At that time the Ohio Department of Health regulated public water systems and the rules and regulations were fairly limited, thus the price of water was relatively low. In 1954 Oakwood drilled two wells at 120 Springhouse Road. This site became known as the "Springhouse Wellfield." This was the beginning of Oakwood's quest to become water independent.

From 1954 to 1965 water was pumped from these two wells. This proved so successful that three new wells (Wells #1, 2 & 3) were drilled to a greater depth so as to sustain heavier pumping. The original two wells were abandoned. This increased water production and decreased Oakwood's reliance on Dayton water. The water was chlorinated to ensure that it was free from bacteria.

In 1978 a second well field was developed at the south end of Firwood Drive off Irving Avenue in Dayton. It was referred to as the "Firwood Wellfield." Between 1978 and 1988 three production wells (Wells #4, 5 & 6) were drilled at this location. The groundwater resources in this area proved to be abundant. In 1985 Oakwood purchased land on the north side of Irving Avenue to build a soccer field. In 1986 Well #7 was drilled adjacent to the soccer field. This site became known as the "Soccer Field Wellfield".

Prior to using water from the Firwood Wellfield, the Ohio EPA required the City to construct an Iron and Manganese Removal Plant due to elevated levels of iron and manganese in Well #5. The plant was constructed in 1980 at the 210 Shafor Boulevard Service Yard. This plant also housed the chlorination system for Wells #4, 5, 6 & 7.

In 1987 Oakwood decided to explore the possibility of softening the City water. In 1988 plans were completed for the plant at 210 Shafor. The plant was constructed in 1989. In 1991 plans were completed for the plant at 120 Springhouse and the plant was built in 1992. Both water softening plants use the "Ion Exchange" softening process. This is the same process used in most private home water softening units. The softening system removes hardness, primarily calcium and magnesium. Periodically the softening units require backwashing and regenerating of the resin bed filters.

In 2004 Well #8 was drilled in the Firwood Wellfield and placed into service. This well was needed to further enhance Oakwood's water independence.

Water Pumpage Statistics

The enclosed reports and tables (Sections II & III) provide monthly and yearly totals of the city of Oakwood's 2008 water pumpage. It includes monthly and yearly totals for all wells, the Shafor plant, Springhouse plant and water purchased from outside sources (i.e., city of Dayton and Montgomery County). Throughout the entire 2008 year no water was purchased for other than valve testing purposes. No fire response in Oakwood required the purchase of Dayton or County water in 2008.

II. Water Monitoring and Testing (OEPA Compliance)

The following samples were collected at the entry points of the water system at 120 Springhouse and 210 Shafor Water Treatment Plants as required by the Ohio EPA in 2008:

- Nitrates, collected June 18, 2008
- Synthetic Organic Compounds (SOC's), collected June 18, 2008

All samples tested under the 2008 Ohio EPA Chemical Monitoring schedule were in compliance of the Safe Drinking Water Act. Table 1 on pages 5 - 7 compares Oakwood's water with EPA standards. All results are from the most recent sample taken. The monthly routine sampling consists of the following tests:

- ***10 bacteriological samples per month from Distribution System***
- ***2 sodium samples per month from Distribution System***
- ***1 sodium sample per month from each Plant***
- ***1 iron and manganese sample per week from each Plant***
- ***Hardness samples daily from each Plant and Distribution System***
- ***free and total chlorine samples daily from each Plant as well as from the Distribution System.***
- ***1 chloride and pH sample per month from each Plant (NPDES Stormwater Permit requirement)***

All 120 bacteriological samples tested negative for coliform bacteria.
Raw water sodium averaged 81 mg/L at 210 Shafor and 140 mg/L at 120 Springhouse.
System water sodium averaged 244 mg/L.
Iron at both plant effluents averaged <0.1 mg/L.
Manganese at both plant effluents averaged <0.01 mg/L.
System water hardness at 210 Shafor averaged 204 mg/L and 198 mg/L at 120 Springhouse.

Oakwood's water plants reduced the hardness level by 60% on the average while the sodium content of the water increased by 221% on the average during 2008.

Table 1

CONTAMINANT	OAKWOOD'S WATER		OEPA MCL	DATE COLLECTED
	Shafor	Springhouse		
VOLATILE ORGANIC COMPOUNDS	Ug/L	ug/L	ug/L	
Benzene	<0.5	<0.5	5.0	6/14/06
Carbon tetrachloride	<0.5	<0.5	5.0	6/14/06
1,1-Dichloroethane	<0.5	<0.5	7.0	6/14/06
1,2-Dichloroethane	<0.5	<0.5	5.0	6/14/06
cis-1,2-Dichloroethene	<0.5	<0.5	70.0	6/14/06
Dichloromethane	<0.5	<0.5	5.0	6/14/06
1,2-Dichloropropane	<0.5	<0.5	5.0	6/14/06
Ethylbenzene	<0.5	<0.5	700.0	6/14/06
Styrene	<0.5	<0.5	100.0	6/14/06
Toluene	<0.5	<0.5	1000.0	6/14/06
1,1,1-Trichloroethane	<0.5	<0.5	200.0	6/14/06
Tetrachloroethene	<0.5	<0.5	5.0	6/14/06
1,2,4-Trichlorobenzene	<0.5	<0.5	70.0	6/14/06
Trichloroethene	<0.5	<0.5	5.0	6/14/06
1,1,2-Trichloroethane	<0.5	<0.5	5.0	6/14/06
Vinyl chloride	<0.5	<0.5	2.0	6/14/06
Xylenes, Total	<0.5	<0.5	10000.0	6/14/06
Bromodichloromethane	<0.5	<0.5	TTHM*	6/14/06
Bromoform	<0.5	0.5	TTHM	6/14/06
Chloroform	<0.5	<0.5	TTHM	6/14/06
Dibromochloromethane	<0.5	0.7	TTHM	6/14/06
Bromobenzene	<0.5	<0.5	NR**	6/14/06
Bromochloromethane	<0.5	<0.5	NR	6/14/06
Bromomethane	<0.5	<0.5	NR	6/14/06
n-Butylbenzene	<0.5	<0.5	NR	6/14/06
sec-Butylbenzene	<0.5	<0.5	NR	6/14/06
tert-Butylbenzene	<0.5	<0.5	NR	6/14/06
Chlorobenzene	<0.5	<0.5	NR	6/14/06
Chloroethane	<0.5	<0.5	NR	6/14/06
Chloromethane	<0.5	<0.5	NR	6/14/06
2-Chlorotoluene	<0.5	<0.5	NR	6/14/06
4-Chlorotoluene	<0.5	<0.5	NR	6/14/06
Dibromomethane	<0.5	<0.5	NR	6/14/06
1,2-Dichlorobenzene	<0.5	<0.5	NR	6/14/06
1,3-Dichlorobenzene	<0.5	<0.5	NR	6/14/06
1,4-Dichlorobenzene	<0.5	<0.5	NR	6/14/06
Dichlorodifluoromethane	<0.5	<0.5	NR	6/14/06
1,1-Dichloroethene	<0.5	<0.5	NR	6/14/06
trans-1,2-Dichloroethene	<0.5	<0.5	NR	6/14/06
1,3-Dichloropropane	<0.5	<0.5	NR	6/14/06
2,2-Dichloropropane	<0.5	<0.5	NR	6/14/06
1,1-Dichloropropene	<0.5	<0.5	NR	6/14/06
1,3-Dichloropropene	<0.5	<0.5	NR	6/14/06
Hexachlorobutadiene	<0.5	<0.5	NR	6/14/06
Isopropylbenzene	<0.5	<0.5	NR	6/14/06
Naphthalene	<0.5	<0.5	NR	6/14/06

* TTHM: Trihalomethanes regulated separately as Disinfection Byproducts

** NR: Not Regulated

Table 1 (cont.)

CONTAMINANT	OAKWOOD'S WATER		OEPA MCL	DATE COLLECTED
	Shafor	Springhouse		
SYNTHETIC ORGANIC CHEMICALS	ug/L	ug/L	ug/L	
Alachlor	<0.2	<0.2	2.0	6/18/08
Aldicarb	<0.5	<0.5	7.0	8/17/05
Aldicarb sulfone	<0.5	<0.5	7.0	8/17/05
Aldicarb Sulfoxide	<0.5	<0.5	7.0	8/17/05
Atrazine	<0.3	<0.3	3.0	6/18/08
Benzo(a)pyrene	<0.05	<0.05	0.2	8/17/05
Carbofuran	<4	<4	40.0	8/17/05
Chlordane (total)	<0.4	<0.4	2.0	8/17/05
Dalapon	<20	<20	200.0	8/17/05
Dibromochloropropane	<0.05	<0.05	0.2	8/17/05
2,4-D	<7.0	<7.0	70.0	8/17/05
Dinoseb	<1.0	<1.0	7.0	8/17/05
Diquat	<2.0	<2.0	20.0	8/17/05
Endothall	<20	<20	100.0	8/17/05
Endrin	<0.2	<0.2	2.0	8/17/05
Ethylene Dibromide	<0.02	<0.02	0.05	8/17/05
Glyphosate	<70	<70	700.0	8/17/05
Heptachlor	<0.1	<0.1	0.4	8/17/05
Heptachlor Epoxide	<0.05	<0.05	0.2	8/17/05
Hexachlorobenzene	<0.25	<0.25	1.0	8/17/05
Hexachlorocyclopentadiene	<5	<5	50.0	8/17/05
Lindane	<0.04	<0.04	0.2	8/17/05
Methoxychlor	<4	<4	40.0	8/17/05
Oxamyl (Vydate)	<20	<20	200.0	8/17/05
Pentachlorophenol	<0.2	<0.2	1.0	8/17/05
Piclorm	<50	<50	500.0	8/17/05
PCB's (total)	<0.1	<0.1	0.5	8/17/05
Simazine	<0.4	<0.4	4.0	6/18/08
Toxaphene	<1	<1	3.0	8/17/05
2,4,5-TP (Silvex)	<5.0	<5.0	50.0	8/17/05
Aldrin	<30	<30	NR	8/17/05
Butachlor	<5	<5	NR	8/17/05
Carbaryl	<10	<10	NR	8/17/05
Dicamba	<10	<10	NR	8/17/05
Dieldrin	<20	<20	NR	8/17/05
Di(2-ethylhexyl) adipate	<40	<40	NR	8/17/05
Di(2-ethylhexyl) phthalate	<1	<1	NR	8/17/05
3-Hydrooxycarbofuran	<10	<10	NR	8/17/05
Methomyl	<50	<50	NR	8/17/05
Metolachlor	<5	<5	NR	8/17/05
Metribuzin	<2	<2	NR	8/17/05
Propachlor	<5	<5	NR	8/17/05

Table 1 (cont.)

CONTAMINANT	OAKWOOD'S WATER		OEPA MCL	DATE COLLECTED
	Shafor	Springhouse		
INORGANIC CONTAMINENTS	ug/L	ug/L	ug/L	
Antimony, total	<4.0	<4.0	6.0	6/14/06
Barium, total	<300	<300	2.0	6/14/06
Beryllium, total	<1.0	<1.0	4.0	6/14/06
Cadmium, total	<1.0	<1.0	5.0	6/14/06
Chromium, total	<10.0	<10.0	100.0	6/14/06
Cyanide, total	<5.0	<5.0	200.0	6/14/06
Fluoride,total	0.24	0.22	4.0	6/14/06
Mercury, total	<0.5	<0.5	2.0	6/14/06
Nickel, total	<20.0	<20.0		6/14/06
Selenium, total	<5.0	<5.0	50.0	6/14/06
Thallium, total	<1.5	<1.5	2.0	6/14/06

CONTAMINANT	OAKWOOD'S WATER		OEPA MCL	DATE COLLECTED
	Far Hills	Ridgeway		
TOTAL TRIHALOMETHANES	ug/L	ug/L	ug/L	
Chloroform	0.6	0.7		7/12/06
Bromoform	1.6	2.6		7/12/06
Bromodichloromethane	1.5	2.2		7/12/06
Dibromochloromethane	2.7	4.2		7/12/06
Total TTHM's	6.4	9.7	80.0	

CONTAMINANT	OAKWOOD'S WATER		OEPA MCL	DATE COLLECTED
	Far Hills	Ridgeway		
FIVE HALOACETIC ACIDS	ug/L	ug/L	ug/L	
Dibromoacetic Acid	1.61	2.70		7/12/06
Dichloroacetic Acid	<1.00	<1.00		7/12/06
Monobromoacetic Acid	<1.00	<1.00		7/12/06
Monochloroacetic Acid	<2.00	<2.00		7/12/06
Trichloroacetic Acid	<1.00	<1.00		7/12/06
Total HAA5's	1.61	2.70	60.00	

CONTAMINANT	OAKWOOD'S WATER		OEPA MCL	DATE COLLECTED
	Shafor	Springhouse		
MISCELLANEOUS	Mg/L	mg/L	mg/L	
Arsenic	<0.003	<0.003	0.01	6/16/06
Nitrate	1.48	1.22	10	6/18/08
Sulfate	52	63	250	7/12/95
Asbestos	<0.0002	<0.0002		7/5/94

CONTAMINANT	OAKWOOD'S WATER		OEPA MCL	DATE COLLECTED
	Shafor	Springhouse		
RADIOLOGICAL	Pci/L	pci/L	pci/L	
Alpha, total	<3	<3	15	8/14/03
Radium-228	<1.0	<1.0	5	8/14/03
Beta, total	<4.0	<4.0	4	8/14/03

III. WELL PUMPAGE REPORT AND CHARTS

The eight production wells produced 446,675,000 gallons of water in 2008, which is an average of 1,220,000 gallons per day. In 2007, eight production wells produced 562,775,000 gallons of water. This represents a 20.6% decrease in raw water produced in 2008. This significant drop in production is primarily attributable to the difference in rainfall events between 2007 and 2008. Our water usage increases dramatically during the summer months, particularly in dry years. The total water usage from May through September of 2008 was 28% lower than the usage during that same time period in 2007. The 2008 maximum day well production was on August 22 at 2,488,000 gallons. It is common that our highest usage occurs during the summer months when many property owners irrigate their lawns. The 2008 minimum day well production was on September 14 at 687,000 gallons. The minimum day production normally occurs in the middle of winter. In 2008, however, it occurred in September during a major power outage. The outage took place when the remnants of Hurricane Ike destroyed much of DP&L's power transmission and distribution systems.

Out of the 446,675,000 gallons pumped in 2008, 29,873,000 gallons were used to either backwash filters or regenerate the softening units at 210 Shafor and 120 Springhouse. This represents 6.7% of the total water pumped for the year, a 1% increase from 2007.

Charts 1 and 2 below show the 2008 water table draw downs compared to 2006 and 2007.

CHART 1

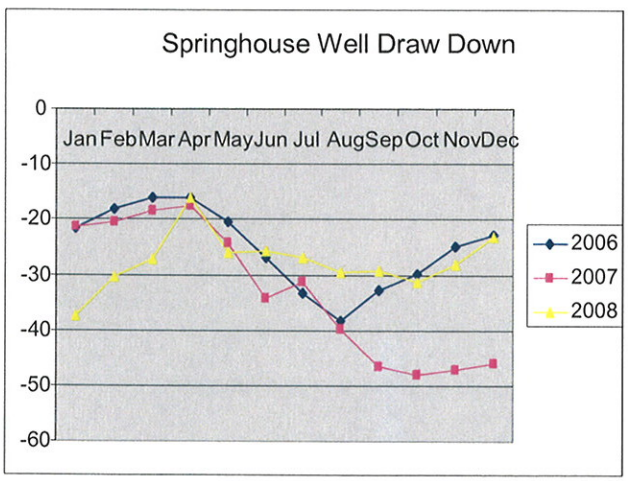
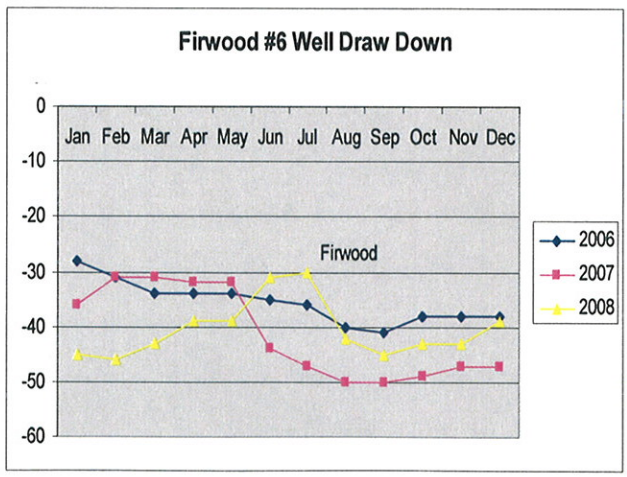


CHART 2



The aquifer water levels in the Wells were heavily stressed in 2007 due to the extreme hot and dry weather. In the Springhouse wells the water level recovered back to a more normal level in April of 2008. As you can see in Chart #1 above the water level stayed higher than normal in the summer months and ended the year at the 2006 level. Well #6 at Firwood took a little longer to recover in 2008 than the Springhouse wells but ended the year at the 2006 levels. (See Chart #2 above) The rest of the wells at Firwood (Wells #4, #7 and #8) had similar results to #6 well.

Table 2 on the next page shows a comparison of total production in gallons per well per month for 2007 and 2008.

TABLE 2

Oakwood, Ohio

CITY OF OAKWOOD WATER DEPARTMENT
MONTHLY WELL PUMPAGE RECORD
MILLION GALLONS

YEAR: 2008
MONTH: December

MONTH	WELL #1		WELL #2		WELL #3		WELL #4		WELL #5		WELL #6		WELL #7		WELL #8		MONTHLY TOTAL		ANNUAL TOTAL	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
JANUARY	13.692	12.146	0.369	0.000	0.000	0.019	4.291	17.732	0.000	0.000	8.694	2.034	1.032	0.000	0.000	0.007	28.078	31.938	28.078	31.938
FEBRUARY	14.076	10.433	0.039	0.000	0.000	0.000	0.000	17.588	0.000	0.000	11.975	1.114	1.586	0.002	0.197	0.000	27.873	29.137	55.951	61.075
MARCH	14.715	14.468	0.086	0.195	0.002	1.174	4.241	5.841	0.000	0.000	8.208	7.403	1.872	0.016	1.480	1.577	30.604	30.674	86.555	91.749
APRIL	15.113	5.828	0.828	0.112	0.001	0.807	14.132	16.457	0.000	0.000	0.681	5.667	1.695	3.055	0.000	1.328	32.450	33.254	119.005	125.003
MAY	17.694	16.956	3.917	0.000	1.489	1.410	9.468	14.439	0.000	0.000	14.680	2.586	5.241	1.071	0.432	0.484	52.921	36.946	171.926	161.949
JUNE	15.880	17.325	4.086	0.000	7.424	2.337	14.699	0.804	0.000	0.000	12.544	13.981	5.458	2.045	4.481	0.000	64.572	36.492	236.498	198.441
JULY	4.350	19.031	6.087	0.187	9.125	3.651	15.373	6.877	0.000	0.000	8.845	14.968	5.865	0.596	7.876	1.218	57.521	46.528	294.019	244.969
AUGUST	22.443	17.254	3.411	0.655	7.290	4.810	15.094	17.726	0.000	0.000	3.104	5.287	5.773	5.589	11.737	5.823	68.852	57.144	362.871	302.113
SEPTEMBER	21.506	17.296	5.353	0.923	1.336	3.255	12.505	4.878	0.000	0.000	4.246	9.268	5.524	4.621	11.601	2.735	62.071	42.976	424.942	345.089
OCTOBER	21.725	20.209	4.084	0.091	0.001	0.979	12.829	5.794	0.000	0.000	1.242	9.422	5.509	2.212	8.567	1.662	53.957	40.369	478.899	385.458
NOVEMBER	15.544	17.529	3.483	0.001	0.546	0.089	9.752	4.679	0.000	0.000	4.986	7.786	5.543	0.806	4.123	0.000	43.977	30.890	522.876	416.348
DECEMBER	18.931	13.794	0.000	0.382	0.823	0.665	13.695	14.912	0.000	0.000	4.062	0.002	2.025	0.572	0.363	0.000	39.899	30.327	562.775	446.675
ANNUAL	195.669	182.269	31.743	2.546	28.037	19.196	126.079	127.727	0.000	0.000	83.267	79.518	47.123	20.585	50.857	14.834	562.775	446.675	562.775	446.675
TOTALS	34.77%	40.81%	5.64%	0.57%	4.98%	4.30%	22.40%	28.60%	0.00%	0.00%	14.80%	17.80%	8.37%	4.61%	9.04%	3.32%	100.00%	100.00%		

AVG. DAY (2007 YTD): 1.542 M.G.D. AVG. DAY (2008 YTD): 1.220 M.G.D.

2007	Springhouse wells	255.449	MGD	45.39%
	Firwood wells	307.326	MGD	54.61%
2008	Springhouse wells	204.011	MGD	45.67%
	Firwood wells	242.664	MGD	54.33%

IV. TOTAL PUMPAGE TO SYSTEM REPORT AND CHARTS

The City was able to produce 100% of its total water demand of 416,860,000 gallons (1.139 M.G.D. avg/day) throughout the year compared to 99.73% in 2007. The maximum day system usage was on August 22 at 2,325,000 gallons and the minimum day system usage was on September 14 at 648,000 gallons. No fire events (i.e., extra demand) occurred in 2008 that required city of Dayton water.

Table 3 below shows a comparison of the water resources needed to meet the City's demands in 2007 and 2008.

TABLE 3

Location	2007 Gallons	2007 %	2008 Gallons	2008 %
Oakwood Wells	531,169,000	99.73%	416,856,000	99.9991%
Dayton/Shroyer	619,000	0.11%	4,000	0.0009%
Dayton/Springhouse	843,000	0.16%	0	0%
County/Fairmont	0	0%	0	0%
TOTALS:	532,631,000	100%	416,860,000	100%

There was a decrease in demand of 115,771,000 gallons of water in 2008 compared to 2007 (22%). Table 4 on the next page shows the comparison in total gallons pumped to the system per month for 2007 and 2008.

V. MAINTENANCE

The following is a summary of the larger maintenance projects that took place in 2008.

January:	Replaced backflow preventer at Springhouse
February:	Replaced Well #7 motor, pump and drop pipe
	Replumbed water cooling system for high service pumps at Springhouse
March:	Replaced expansion joint on Well #7
	Rebuilt GA, brine and backwash valves at Springhouse
	Cleaned salt storage tanks at 210 Shafor
April:	Replaced 3-way valve, check valve and piping on brine system at 120 Springhouse
	Cleaned salt storage tanks at 210 Shafor
	Replaced plugged 8" storm line for backwash water along Springhouse Road
May:	Scraped, primed and painted raw water lines at Springhouse and Wells #4, 6 and 7.
June:	Scraped, primed and painted Well #3 and pump station exterior at the water tower
July:	Replaced timer on Well #2
August:	Replaced dehumidifier at Well #6
September:	Rebuilt brine valve on #2 softening unit at 210 Shafor
October:	Replaced Well #4 motor
November:	Cleaned and rebuilt #2 and #3 softening unit meters
December:	Rewound #2 High Service Pump at Springhouse

All preventive maintenance was preformed on schedule and all day-to-day repairs were preformed as needed. All parts inventories are up-to-date in case of any emergencies that might occur.

TABLE 4

CITY OF OAKWOOD WATER DEPARTMENT
MONTHLY PUMPAGE TO SYSTEM RECORD
MILLION GALLONS

YEAR: 2008
MONTH: December

MONTH	SPRINGHOUSE		FIRWOOD		DAYTON/SHROYER		FAIRMONT		DAYTON/SPRING.		MONTHLY TOTAL		ANNUAL TOTAL	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
JANUARY	13.773	11.801	12.929	17.708	0.000	0.000	0.000	0.000	0.000	0.000	26.702	29.509	26.702	29.509
FEBRUARY	13.732	10.148	12.279	16.760	0.000	0.000	0.000	0.000	0.000	0.000	26.011	26.908	52.713	56.417
MARCH	14.430	15.444	14.360	13.520	0.000	0.000	0.000	0.000	0.000	0.000	28.790	28.964	81.503	85.381
APRIL	15.846	6.586	15.442	23.851	0.008	0.000	0.000	0.000	0.000	0.000	31.296	30.437	112.799	115.818
MAY	23.347	17.817	27.225	16.356	0.000	0.000	0.000	0.000	0.000	0.000	50.572	34.173	163.371	149.991
JUNE	27.074	19.013	33.621	15.353	0.000	0.000	0.000	0.000	0.000	0.000	60.695	34.366	224.066	184.357
JULY	19.530	22.265	34.153	21.086	0.120	0.000	0.000	0.000	0.210	0.000	54.013	43.351	278.079	227.708
AUGUST	32.898	22.064	32.152	30.879	0.295	0.004	0.000	0.000	0.217	0.000	65.562	52.947	343.641	280.655
SEPTEMBER	27.917	20.938	30.441	19.648	0.081	0.000	0.000	0.000	0.274	0.000	58.713	40.586	402.354	321.241
OCTOBER	25.401	20.803	25.717	17.429	0.115	0.000	0.000	0.000	0.142	0.000	51.375	38.232	453.729	359.473
NOVEMBER	19.288	16.974	22.126	11.999	0.000	0.000	0.000	0.000	0.000	0.000	41.414	28.973	495.143	388.446
DECEMBER	19.271	14.322	18.217	14.092	0.000	0.000	0.000	0.000	0.000	0.000	37.488	28.414	532.631	416.860
ANNUAL	252.507	198.175	278.662	218.681	0.619	0.004	0.000	0.000	0.843	0.000	532.631	416.860	532.631	416.860
TOTALS	47.41%	47.54%	52.32%	52.46%	0.12%	0.00%	0.00%	0.00%	0.16%	0.00%	100.00%	100.00%		

2007 Summary		
	M.G.	
Oakwood:	531.169	99.73%
Dayton:	1.462	0.27%
County:	0.000	0.00%
TOTAL:	532.631	100%

2007 Avg. per day 1.459 MGD

2008 Summary		
	M.G.	
Oakwood:	416.856	100.00%
Dayton:	0.004	0.00%
County:	0.000	0.00%
TOTAL:	416.860	100%

2008 Avg. per day: 1.139 MGD

VI. BUDGET

In 2008, the Oakwood Water Production Unit was allocated $445,824.00 toward the production of the City's drinking water. The 2007 allocation was $441,850.00. This computes to an average cost of $948.23 per million gallons treated in 2008, up from $831.84 per million gallons in 2007.

The water production unit budget consists of five main categories: personnel, utilities, chemicals, maintenance and miscellaneous. The following charts show what percentage of the budget goes to each of these categories and shows a comparison from the year before.

CHART 3

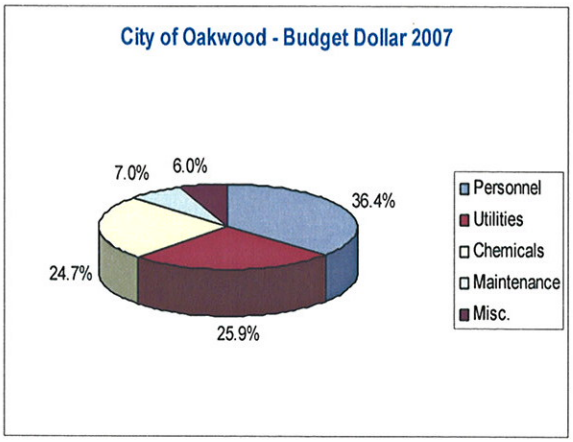
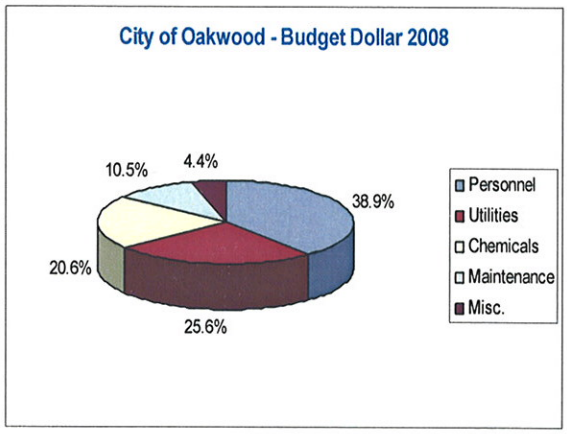


CHART 4



Personnel costs were $164,905.00 for the year representing a 2.5% increase from 2007. Utility costs were $108,399.00 which includes electric and natural gas representing a 5.4 % decrease over 2007. Chemical costs were $87,419.00 representing an 20.1% decrease over 2007. 1,190 tons of salt compared to 1,586 tons in 2007 and 3,205 gallons of sodium hypochlorite compared to 4,020 gallons in 2007 were used to treat the water. All of these decreases are attributable to the 22% decrease in water demand. Maintenance costs were $29,464.00 representing a 4.0% decrease compared to 2007. The larger maintenance projects were discussed earlier in this report.

VI. CONCLUSION

In reviewing our water system, 2008 was a very successful year. All monthly and annual reports to the Ohio EPA and Ohio Department of Natural Resources were submitted on time. All lab testing was completed as required.

On September 14, 2008 a wind storm swept through the city leaving virtually everyone without power, some residents for up to 12 days. With the emergency power generation systems the city maintains Oakwood was able to sustain our water production, treatment and distribution without a hitch. A hearty thanks goes out to the dedicated city employees that assisted during this event and to Oakwood citizens for their cooperation and understanding.

Old Valves

New Valves with Chain Pulls

In December we replaced all valves on the filters at the iron and manganese removal plant. These valves were 29 years old and did not close tightly making backwashing difficult. The new valves have a larger operating wheel making them easier to operate. Chain operators were installed on the higher valves eliminating the need to climb a ladder to operate them. This was a much needed improvement for the proper operation of the filter plant

In looking forward to 2009 and beyond, we will continue to seek ways to operate the water plants in the most efficient manner possible. One important goal will be to update and improve our Contingency Plan to make it more user friendly. A second goal involves replacing softening filter resin. The softening resin at the 210 Shafor plant is 20 years old and is reaching the end of its useful life.

Respectfully submitted,
Gary L. Dursch Sr.
Water Plant Superintendent