

Hamilton County, Ohio
Business Case Report
Fire Hydrant Repair and Maintenance

I. Purpose

The fire hydrant repair and maintenance activity has been identified as a potential candidate for managed competition. Managed competition is a structured, transparent process to foster efficient service delivery and is just one of several practices within the Hamilton County government to ensure the cost of service delivery is minimized.

This document represents the results of a service review to make managed competition decisions. This document is to be used to support a Go/No Go decision concerning a formal managed competition initiative using the Hamilton County Managed Competition Guide (to be developed from the Gate Management Process Guide).

Fire hydrant repair and maintenance was selected for review because it is not a government service that is inherently provided by government employees and is a service that is already contracted for in some form in other jurisdictions.

II. Recommendations

A. Justification Statement – Rationale for introducing competition

Based on the comparative data in Section V-A, it is apparent that the County provides fire hydrant replacement and maintenance services in an efficient manner in relation to other jurisdictions within “in-house” services. Of the two jurisdictions identified for comparison for contracted service delivery (City of Phoenix and Cleveland) there is insufficient information to make a determination if contracted service delivery is more cost effective. Contracted service in Phoenix only pertains to fire hydrant replacements as a part of water main replacement work. Non-scheduled repair and maintenance is an in-house service, as in Hamilton County. For Cleveland, the contractor only installs the hydrant. The utility provides the materials and performs the “restoration” (getting the site back to pre-work condition).

Given the inability to use Phoenix and Cleveland as contracted service models for comparison, a Request for Quotes (RFQ) was issued (Attachment A). As presented in Section V-B, two firms (Nelson Stark and Ken Neyer Plumbing) provided data adequate for comparison to that from the Hamilton County Department of Public Works (DPW).

B. Recommendation of efficiencies/savings

Based on the RFQ comparative data, there is insufficient market interest and capacity in this region, and there is clearly no cost savings to providing fire hydrant repair and maintenance through contracted services. Of the two firms that provided comparable data in the RFQ, Nelson

Stark exceeded DPW cost by \$2.68 million; Ken Neyer Plumbing exceeded DPW by \$525,000. Neither firm expressed an interest in taking on the full scope of DPW hydrant maintenance responsibilities. A formal managed competition process is not warranted in this business case.

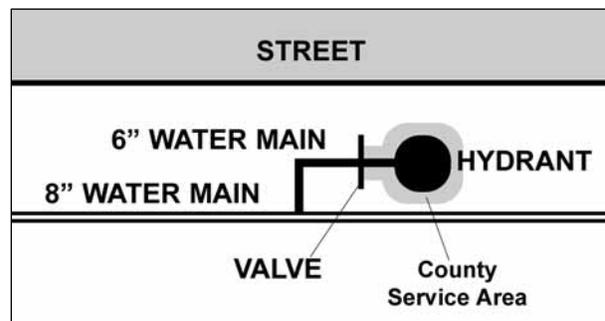
The Competition and Efficiency Committee expressed a particular interest in receiving a quote from Greater Cincinnati Water Works. GCWW was approached during the RFQ, but chose not to bid because its management considers hydrant maintenance difficult, high-risk work, that would not be worth the additional investment required.

Recommendations for efficiencies or improvements that emerged from the assessment of this business case include the following:

1. Maintain fire-hydrant maintenance work with the Department of Public Works. There is neither market interest nor demonstrable cost savings to contracting out services. In addition, the DPW maintains excellent repair times and satisfaction rankings from the fire departments that work with the team.
2. Seek additional hydrant maintenance work in the region. DPW has capacity to generate additional revenue by performing maintenance work for other jurisdictions (as detailed in Section IV). It has already contracted work with the City of Lockland, and has been approached for additional service in Reading and Forest Park.
3. Continue to explore the best vehicles for material acquisition. This business case discovered an efficiency by purchasing fire hydrants through the Greater Cincinnati Water Works (GCWW) contract at a savings of \$200 per hydrant. DPW will continue to explore all available routes for material purchase.
4. Encourage staff to make continuous improvements. DPW staff recently recommended purchasing bolts used in hydrant repair separate from the other material purchases. The staff found that the hydrant vendors' bolts were a common make but cost substantially more when purchased with the hydrant parts. Total cost savings was \$10,000 on the 2005 order of a two-year supply of bolts.

III. Current State: Fire Hydrant Repair and maintenance

As detailed in Attachment B, the Hamilton County Department of Public Works, Maintenance Division is responsible for maintaining approximately 14,000 fire hydrants within the unincorporated portions of Hamilton County. Unincorporated areas of the County total approximately 228 of the 407 square miles in Hamilton County. The Greater Cincinnati Water Works (GCWW) provides water service to Hamilton County as well as portions of Butler and Warren counties in Ohio, and Boone County in Kentucky. GCWW is responsible for all water mains. Fire hydrant repair and maintenance within the unincorporated areas is funded by County residents via the water bill. Currently, the rate is an additional 7% of the City of Cincinnati water rate, and the DPW invoices GCWW regularly to reimburse the cost for debt service on Water West water line projects and fire hydrant repair and maintenance.



During the 12 month period ending October 31, 2005, the DPW repaired or replaced 1,692 fire hydrants. Of this total, 1,411 were reports of damaged hydrants based on reports from fire departments during their annual “exercising” of fire hydrants. An additional 281 fire hydrant repairs were completed based on needs identified by DPW staff. Attachment C includes the number of hydrants maintained by DPW by township and Attachment D includes the number of fire hydrant repairs by township from 2001 to 2006 year-to-date. Section V provides comparative cost information from other jurisdictions and describes the seasonality of fire hydrant repair and maintenance in Cincinnati because of fire department inspection schedules which result in surge work each spring.

The performance goal of DPW is to respond to “out of service” fire hydrant service calls within 24-hours and non-priority service calls (hydrants in need of repair, but still operable) within 72-hours. During 2005, DPW met these goals 99% and 98% of the time, respectively.

The estimated 12-month cost of this activity through October 2005 was \$609,183, assuming that DPW used exclusively new hydrant parts during maintenance. Subtracting the value of the hydrant parts salvaged during the 12-month period (\$88,681) yields a net cost to the county of \$520,501. The net cost also includes employee benefit costs and administrative overhead. It should be noted that initial cost data provided the Competition and Efficiency Committee (CEC) included fire hydrant material costs associated with normal GCWW water main replacements that the county incurs regardless of service provider. Additionally, the historical information provided the CEC did not sufficiently note multi-year capital purchases and years when no materials were purchased. The costs in this report reflect normal annual operating costs.

Historically, fire hydrant repair was a contracted service until 1973. After 1973, this service was brought in-house as a cost saving measure. Attachment E includes sample costs for contract fire hydrant replacement in 1973. Applying a 2% inflation factor since 1973 would result in a \$3,191 cost in 2006 compared to the current cost of \$2,369.

IV. Other Service Delivery Models

Based on comparative review, the most common service delivery model is in-house staff. It is assumed that this model is most common because fire hydrant repair is an unpredictable service activity, it is a relatively minor part of a water system repair and maintenance program, and because of the availability of skilled repair staff in-house.

Recently, DPW has been approached by other jurisdictions in the County to perform fire hydrant repair and maintenance. Specifically, the City of Lockland obtained a private sector estimate of \$21,000 to \$30,000 to replace six fire hydrants. DPW performed the work for a total of \$2,227 because it was able to repair five of the fire hydrants and only replace one. While this provides significant savings to the City of Lockland, DPW included an administrative overhead charge to recoup some of the County’s fixed administrative costs. Based on this experience, the cities of Reading and Forest Park have approached the County for fire hydrant repair and maintenance services.

As detailed in the following section, two of the nine fire hydrant repair and maintenance operations benchmarked use contractors as opposed to in-house staff.

V. Comparables

A. Comparison to Other Jurisdictions

DPW and the Office of Budget and Strategic Initiatives developed a data collection instrument to benchmark fire hydrant repair and maintenance operations. The following jurisdictions were contacted:

- Greater Cincinnati Water Works;
- Cleveland, Ohio;
- Franklin County, Ohio (Columbus);
- Montgomery County, Ohio (Dayton);
- Lucas County, Ohio (Toledo);
- Marion County, Indiana (Indianapolis);
- Mecklenburg County, North Carolina (Charlotte);
- Dade County, Florida (Miami); and
- Phoenix, Arizona.

Attachment F includes the data collected to date. The data collection and comparison process resulted in several important caveats:

Climate differences: Warm weather climates do not require that water mains and fire hydrant pipes to be below a “frost line.” Labor costs associated with digging to a 36 inch frost line in colder climates increases the cost of the service.

Geographic features: Jurisdictions with hills, older infrastructures, and certain soil types will increase service costs. For example, in Phoenix, the flat terrain, loose soil, and newer infrastructures that are coordinated reduce the cost of fire hydrant repair and maintenance.

System age: Older water systems are more prone to fire hydrant replacements as opposed to repairs due to the age of hydrants and lack of availability of parts for older hydrants.

Fire Department hydrant “exercising”: Fire departments typically “exercise” hydrants once per year. When this occurs varies by jurisdiction. Cincinnati-area fire departments concentrate hydrant exercising in early spring after the winter months and results in a surge of repair activity. In warmer climates, exercising activities can occur year-round and thus avoiding surges in repair activity and the associated premium costs.

There is no way to quantify the impact of these differences when comparing costs to deliver fire hydrant repair and maintenance services, but these should be considered anecdotally.

The following table summarizes the system characteristics and summary cost data obtained to date.

Table I – Fire Hydrant Repair and Maintenance Comparative Data – Other Jurisdictions

Jurisdiction	Hydrants Maintained	Total Budget ¹	Cost Per Replacement	In-House / Contractor
Hamilton County	14,000	\$609,205	\$1,300-\$1,540 ²	In-House
Cincinnati	10,000	\$750,000	\$2,139	In-House
Cleveland ³	18,000	\$3.5 million	\$1,700 – \$2,000	Contractor
Franklin County	622	N/A	\$1,723	In-House
Montgomery County	10,000	N/A	\$2,000 - \$3,000	In-House
Lucas County	5,000	N/A	\$2,089	In-House
Marion County	38,000	N/A	\$1,967	In-House
Mecklenburg County	25,000	N/A	\$2,000 - \$3,000	In-House
Dade County	28,000	\$1.6 million	N/A	In-House
Phoenix ⁴	46,000	N/A	\$1,900	Contractor

1/ Fire hydrant repair is a small part of a water system’s maintenance repair activity and separate cost accounting is typically not available.

2/ \$1,300 if hydrants are purchased from the City of Cincinnati contract, \$1,540 if hydrants are purchased on the County contract.

3/ The City of Cleveland contracts for fire hydrant replacement and repair; however, the City provides the materials and performs the site restoration (returning the site to pre-work condition).

4/ The City of Phoenix contracts for fire hydrant replacement in the context of scheduled water main replacements. Repairs and maintenance are performed by in-house staff. The table reflects water main related fire hydrant replacement costs only because in-house repair and maintenance costs were not available.

In reviewing the information provided additional normalization was required to ensure equal treatment of employee benefits. Administrative overhead was not included because of the inability to collect consistent data. To improve the standardization of comparison, DPW developed three detailed categories of fire hydrant repair and a worksheet for hydrant replacement (Attachment G). These categories allow for uniform data collection and to standardize comparisons. Additionally, these categories were used to develop a scope of services for the request for quotes (RFQ).

B. Comparison to Regional Vendors

DPW and County Purchasing developed a spreadsheet that the County asked vendors to complete in a RFQ issued on April 25. The spreadsheet asked the vendors to provide material, and labor costs for eight fire hydrant repair and replacement scenarios. The RFQ was sent to 292 vendors through the purchasing system, nine suppliers provided by DPW (Attachment H), and 10 excavator contractors via telephone.

Of the 311 vendors contacted, two provided labor and materials as requested (Attachment I). One quoted materials only, and six provided labor rates in telephone conversations with the County purchasing director. The consensus from the purchasing director's conversations was that fire hydrants maintenance is not profitable to these vendors, and to the extent that they were interested in providing the service at all, it was on a limited, replacement-only basis.

The following table shows the total costs to the DPW for the 12 months ending in October 2005 (with labor rates adjusted for 2006) and the quoted costs from the two responding vendors adjusted for the number and type of projects to which Public Works responded during that period.

Table II – Fire Hydrant Repair and Maintenance Comparative Data – Regional Vendors

Vendor	Total Cost	Variance from DPW	Union/ Non-Union
Hamilton County Department of Public Works	\$614,136	--	Non-Union
Nelson Stark	\$3,291,400	\$2,677,264	Union
Ken Neyer Plumbing	\$1,139,082	\$524,946	Non-Union

Other considerations to take into account regarding the quotes above:

- The outside vendor quotes do not include the costs to the county for inspection and administration of the vendor contracts.
- The outside vendors quotes do not take into account any parameters for response times, total hydrants out of service, or customer satisfaction ratings. DPW currently performs very well in all of these categories.

The Competition and Efficiency Committee expressed a particular interest in receiving a quote from Greater Cincinnati Water Works. GCWW was approached during the RFQ, but chose not to bid because its management considers hydrant maintenance difficult, high-risk work, that would not be worth the additional investment required.

VI. Lessons Learned

Following are some key items that the participants in this business case feel would be useful to consider in the development of future Competition and Efficiency cases:

- **Market assessment** – Before beginning a business case assessment, consider whether or not a viable market exists or can be generated for the services subject to competition. This parameter is one that might be incorporated into the business rules for embarking on a competition case study.
- **Scope of service** – Consider the total impact on the County of privatizing a service. Make sure that the business case takes into consideration all of the work performed by the County team subject to competition. For example, the team that handles fire hydrant maintenance also performs waterline assessments and snow removal for the County. The full case study of hydrant maintenance could have taken into account the cost of a private solution to all of these services.

- **Department communication** – Initiate early and open communication with the departments subject to competition. Involve them in the planning exercises for the case and insure the case assessment is a collaborative effort.
- **Data collection** – Establish workable parameters for consistent data collection early in the case study. Consider how the study will handle overhead, employee benefits, vacation and sick time, administrative costs and the costs to monitor any contracts that result from the competition process.
- **Comparable governments** – Consider whether or not another jurisdiction is a good match for comparison. This decision should take into account any specific characteristics that might skew the data in the individual case. For example, climate and soil conditions played a role in the hydrant case comparisons to Phoenix and Miami that was not anticipated in the initial assessment of comparable jurisdictions.
- **Operating models** – Consider the different operating models for delivering the same services in different jurisdictions. For example, an efficient model for hydrant maintenance in a jurisdiction that also operates a water utility may be entirely different from one that does not.
- **RFQ development** – Carefully consider the goals for issuing an RFQ and develop the RFQ (or another vehicle) that captures the necessary information as efficiently as possible while encouraging vendors to participate. Consider who the market target is and what will be the best vehicle for approaching them.

Attachments:

- A. Hydrant maintenance request for quotes (RFQ)
- B. Hydrant maintenance program, 11/1/2004-10/31/2005
- C. County maintained hydrants, by township
- D. Hydrant maintenance volume, by township, 12/01-6/06
- E. Sample contractor costs, 1973
- F. Comparative maintenance data, other jurisdictions
- G. Standardized maintenance data, other jurisdictions
- H. Hydrant contractor list
- I. Comparative data, RFQ respondents

SPECIAL NOTES FOR FIRE HYDRANT REPAIR QUOTE

- (1) All fire hydrants to be installed with this water line installation will be furnished by the Contractor
- (2) All permits required for this water main installation will be applied for, and paid for by the Contractor.
- (3) The Contractor will be responsible for paying the Greater Cincinnati Water Works charges for inspection.
- (4) All restoration costs should be included in the price quote for each item.
- (5) All pipe and fitting joints to be fully restrained with Greater Cincinnati Water Works approved restraints. This will include all fittings and fire hydrant leads.

The labor and material for furnishing and installing the Greater Cincinnati Water Works approved restraints should be included in the price quote for each item.

- (6) The Contractor shall maintain local traffic, including pedestrian access, at all times during construction. Temporary Driveways, may be necessary to provide vehicular access to and from the abutting properties, and shall be constructed, maintained, and subsequently removed by the Contractor.

The pavement shall be kept clear of all excavated material.

If at any time traffic has to be blocked, the Contractor shall notify the nearest Fire and Police Departments (Emergencies Only)

All costs for maintaining traffic shall be included in the price quote for each item.

- (7) Unless otherwise specified all materials shall be new and both workmanship and materials shall be of the first quality, proper and sufficient for the purpose contemplated. The Contractor shall furnish, as so required, satisfactory evidence as to the kind and quality of materials and workmanship.
- (8) It shall be the responsibility of the Contractor to perform his work in such a manner as not to damage or destroy any existing facilities. If such damage does occur due to the Contractor's operation, he shall replace the damaged portion at his expense.

- (9) Contractor will take necessary precautions for the protection of any utility encountered on the Project or the restoration of any utility damaged during the work.

It is assumed there are water and gas branch lines, etc. serving each residence. The Contractor shall repair or replace these utilities if damaged at no cost to the County.

The Contractor shall notify, at least 48 hours before breaking ground, all public and/or private service corporations having wire, poles, pipes, conduit, manhole, or other structures that may be affected by this operation.

- (10) All items affected by the Contractor's work including, but not limited to, sidewalks, curbs, curb and gutter, concrete pavement, asphalt pavement, asphalt driveways and approaches, concrete driveways and approaches, sodding, seeding and mulching, etc. shall be restored, reshaped, and graded to drain and shall be included in the price quote for each item.

The restoration of sunken trenches shall be the Contractor's responsibility. Sunken areas shall be backfilled and compacted to meet adjoining grades; the surface shall be re-seeded or surfaced with blacktop or concrete matching the existing surfacing.

The Contractor shall restore areas outside the street Right-of-Way by seeding and mulching per ODOT Specification ITEM 659.

Driveways shall be restored in kind with one and one quarter (1-1/4) inches of Asphalt Surface Course on a six (6) inch Aggregate Cement Concrete Pavement. Concrete walks shall be restored with five (5) inch thick Plain Portland Cement Concrete Walk.

All disturbed areas shall be restored as nearly as practical in their condition prior to construction, including sidewalks.

The cost of all restoration shall be included in the price quote for each item.

- (11) All equipment necessary to repair/replace fire hydrants is to be furnished by the Contractor. The cost of equipment shall be included in the price quote for each item.
- (12) One Licenced Plumber must be in attendance for pay items 1 thru 6.
- (13) Ohio Prevailing Wage must be paid to all employees.

SYSTEM INFORMATION FOR FIRE HYDRANT REPAIR QUOTE

- (1) Service area is approximately 228 square miles. It includes the unincorporated portion of Hamilton County.
- (2) The following fire hydrant types are within the system: Kennedy, Mueller and American Darling.
- (3) The service area has 5 water suppliers. They are: Greater Cincinnati Water Works, Loveland Water Works, Wyoming Water Works, Indian Hill Water Works and Clermont County Water Works.
- (4) The following repair times (in work days) must be met:
 - (A) Fire hydrant not requiring digging 1 Day
 - (B) Fire hydrant requiring digging 15 Days

FIRE HYDRANT REPAIR QUOTE

DATE _____

PAY ITEM NO.	DESCRIPTION	UNIT	QTY.	UNIT PRICE QUOTE			ESTIMATED QUOTE
				LABOR	MATERIAL	COMBINED	
1	Replace Fire Hydrant	EA.	1				
2	Raise Fire Hydrant	EA.	1				
3	Replace Fire Hydrant Stem	EA.	1				
4	Replace Fire Hydrant Seat Ring	EA.	1				
5	Replace Fire Hydrant Main Valve	EA.	1				
6	Replace Fire Hydrant Drip Valve	EA.	1				
7	Replace Fire Hydrant Cap	EA.	1				
8	Replace Fire Hydrant Chain	EA.	1				

HAMILTON COUNTY DEPARTMENT OF PUBLIC WORKS
Fire Hydrant Maintenance Program
November 1, 2004 thru October 31, 2005

Enclosed is a document calculating the Hamilton County cost of servicing fire hydrants in the unincorporated portions of Hamilton County, and a second document indicating response time and efficiency in the repair of those fire hydrants. The data analyzed covers the time period from November 1, 2004 thru October 31, 2005. The Department of Public Works Maintenance Division contains 12 full time employees that are responsible for fire hydrant maintenance, storm sewer maintenance, responding to storm sewer complaints and requests for information, snow removal and grass cutting for Hamilton County owned facilities, in-house maintenance of our vehicles and equipment and numerous special projects such as construction of a water line along Civic Center Drive, construction of a retaining wall along Clough Creek on Hamilton County owned property, and construction of a sod farm for Paul Brown Stadium. We often contract with MRDD or Townships to assist in major storm system repairs.

The fire hydrant service area consists of approximately 228 square miles and contains approximately 14,000 fire hydrants. The service area also contains 12 distinct fire departments. During the time period analyzed, the department responded to 1411 reports of damaged fire hydrants and performed maintenance on 1692 fire hydrants. The additional 281 fire hydrants repaired were fire hydrants the department discovered during it's response to the reported fire hydrants.

It is the goal of the Department of Public Works to respond to priority fire hydrants (hydrants "Out of Service") within 24 hours and repair or determine the need for, and schedule, a water line shut down. This goal was met 428 times of

the 432 reported incidents. A 99% efficiency rating. It is also a goal of the department to respond to non-priority fire hydrants (hydrants in need of repair, but still operable) within 72 hours and repair or determine the need for, and schedule, a water line shut down. This goal was met 962 times of the 979 reported incidents. A 98% efficiency rating.

Actual repair time has been separated into fire hydrants needing to be excavated ("Dug" Fire Hydrants) and "Non-Dig" Fire Hydrants. Fire hydrants needing to be dug require the moving of excavating equipment to the site, scheduling a shut down of the water main by Greater Cincinnati Water Works and a more lengthy repair time. The Non-Dig Fire Hydrants were then broken into "Priority" Fire Hydrants (Out of Service) and "Non-Priority" Fire Hydrants.

There were 366 Non-Dig, Priority Fire Hydrant repairs. The average time for repair was 0.83 days with 300 (82%) of the fire hydrants repaired within 1 day of notification. There were 1228 Non-Dig, Non-Priority Fire Hydrant repairs. The average time for repair was 0.29 days with 1159 (94.4%) repaired the same or the day following notification. There were 82 Dig, Priority Fire Hydrant repairs. The average time for repair was 15.5 days. The average time calculated does not include 8 fire hydrants repaired that were delayed waiting for Greater Cincinnati Water Works to respond. This delay was not within the control of Hamilton County Public Works Department and therefore excluded from our average repair time.

HAMILTON COUNTY DEPARTMENT OF PUBLIC WORKS
HYDRANT REPAIR

November 2004 - October 2005
1692 Fire Hydrants Repaired

1	<u>MAN HOURS COST</u>			
	9433 Hours x \$22.03		\$ 207,809 x 1.13	\$ 234,824
2	<u>EQUIPMENT COST</u>			
	a) 874 Hours x 60% x \$77.80/hr. =			\$40,798
	b) 874 Hours x 40% x \$22.50/hr. =			\$7,866
	c) 1921 Hours x \$22.50/hr. =			\$43,223
	Total Equipment			\$ 91,887
3	<u>ADMINISTRATION COST</u>			
	a) B. Sturgill 1,016 hrs. x \$32.52/hr =	\$	33,020	
	b) J. Leedy 90 hrs. x \$46.40 =	\$	4,176	
	c) S. Baker 99 hrs. x \$34.16 =	\$	3,382	
	d) D. Schlotman 114 hrs. x \$24.05 =	\$	2,742	
	e) G. Van Hart 50 hrs. x \$62.63 =	\$	3,132	
	f) V. Dixit 138 hrs. x \$23.73 =	\$	3,275	
	g) T. Donahoe 79 hrs. x \$22.89 =	\$	1,808	
	Total Administration	\$	51,534 x 1.13	\$ 58,234
4	<u>MATERIAL COST</u>			
	<u>DUG HYDRANT REPAIR</u>			
	a) 55 [FH Replaced] x \$1,000/Replace =			\$ 55,000
	b) 35 [FH Dug, Major Repair] x \$110.00 =			\$ 3,850
	<u>NON-DUG HYDRANT REPAIR</u>			
	c) 340 Major Repair [Raise FH; Reset Top Section; etc.] x \$185.00 =			\$ 62,900
	d) 580 Average Repair [Replace stem; Seat Ring, Main Valve, Drip Valve, etc.] x \$172.00 =			\$ 99,760
	e) 682 Minor Repair [Replace Cap, Chain, etc.] x \$4.00			\$ 2,728
	Total Material			\$ 224,238
	TOTAL EXPENDITURES (with all new parts)			\$ 609,183
	SCRAP VALUE (salvaged parts)			\$ (88,681)
	NET COST TO COUNTY			\$ 520,501

HAMILTON COUNTY DEPARTMENT OF PUBLIC WORKS
Hydrant Repair Efficiency and Response Time

November 2004 - October 2005

REPORTED PRIORITY AND NON-PRIORITY FIRE HYDRANTS

INDICATOR:	<u>QUANTITY</u>	<u>EFFICIENCY</u>
Initial response with possible repair within 24 hours of notification that fire hydrant is out of service	432	428/432 = 99.1%
Initial response with possible repair within 72 hours of notification that fire hydrant is defective but still in service	979	962/979 = 98.3%

NON-DIG FIRE HYDRANT REPAIR TIME

PRIORITY FIRE HYDRANT:	<u>QUANTITY</u>	<u>REPAIR COMPLETION TIME</u>
Average time to repair Priority Non-Dig fire hydrant following notification of out of service	366 **	0.83 Days

The following response times were achieved for the 366 priority hydrants:

<u>DAYS TO COMPLETE</u>	<u>NO. OF FIRE HYDRANTS</u>	<u>PERCENTAGE OF HYDRANTS</u>
Same Day	166	45.4
1 Day	134	36.6
2 Days	47	12.8
3 Days	18	4.9
Over 3 Days *	1	0.3
	<hr/> 366	<hr/> 100%

* Delayed due to material delivery

** Repair completion time does not include 8 fire hydrants held up due to GCWW

NON-PRIORITY FIRE HYDRANT:

QUANTITY

REPAIR COMPLETION
TIME

Average time to repair Non-Priority, Non-Dig fire hydrant following notification of defect, but still in service

1228

0.29 Days

The following response times were achieved for the 1228 Non-Priority hydrants:

<u>DAYS TO COMPLETE</u>	<u>NO. OF FIRE HYDRANTS</u>	<u>PERCENTAGE OF HYDRANTS</u>
Same Day	965	78.6
1 Day	194	15.8
2 Days	63	5.1
3 Days	5	0.4
Over 3 Days *	1	0.1
	1228	100%

* Delayed due to material delivery

NON DIGS

From: 11 / 01 / 2004 To: 10 / 31 / 2005 (12 months)

12/15/2005

72 Hours (Non - Priority) 1267 Hydrants

Total number of hydrants reported 979 (we checked 962 of the 979 within 72 hours = 98.3 %

Time to Complete Per Employee	0.50	1.00	1.5 (+)	
No. of Hydrants	617	406	205	Total: 1228

No. of Days to Complete	SAME DAY	1 - DAY	2 - DAYS	3 - DAYS	OVER 3 - DAYS	
No. of Hydrants	965	194	63	5	1	1228
Total Number of Days	0	194	126	15	21	356
Avg. to Complete each Hydrant NOT including the 7 that CWW are still holding up.						0.29

No. of Days to Complete	SAME DAY	1 - DAY	2 - DAYS	3 - DAYS	OVER 3 - DAYS	
No. of Hydrants	965	194	63	5	8	1235
Total Number of Days	0	194	126	15	803	1138
Avg. Time to Date - Including the 7 hydrants that CWW are still holding up.						0.92

	No. of Hydrants	No. of Days	Avg. Days Per Hydrant	
Waiting on CWW for Something (see next sheet)	7	782	111.7	Total: 7

TOTAL NON - PRIORITY: 1235

24 Hours (Priority) 432 Hydrants

Total number of hydrants reported 432 (we checked 428 of the 432 within 72 hours = 99.1 %

Time to Complete Per Employee	0.50	1.00	1.5 (+)	
No. of Hydrants	65	174	135	Total: 374

No. of Days to Complete	SAME DAY	1 - DAY	2 - DAYS	3 - DAYS	OVER 3 - DAYS	
No. of Hydrants	166	134	47	18	1	366
Total Number of Days	0	134	94	54	21	303
Avg. to Complete each Hydrant NOT including the 8 that CWW held up.						0.81

No. of Days to Complete	SAME DAY	1 - DAY	2 - DAYS	3 - DAYS	OVER 3 - DAYS	
No. of Hydrants	166	134	47	18	9	374
Total Number of Days	0	157	94	54	404	709
Avg. to Complete each Hydrant Including the 8 that CWW held up.						1.90

	No. of Hydrants	No. of Days	Avg. Days Per Hydrant
Waited on CWW - BUT now complete (see next sheet)	8	383	47.88

TOTAL PRIORITY: 374

TOTAL HYDRANTS: 1609

DIGS (90)

From: 11/01/2004 To: 10/31/2005 (12 months)

	No. of Digs Replaced	No. of Days to Complete	Avg. days per Hydrant
Hydrants: Dug & Replaced	46	871	18.93
	No. of Digs	No. of Days to Complete	Avg. days per Hydrant
Hydrants: Dug & Repaired	35	395	11.30
	No. of Digs	No. of Days to Complete	Avg. days per Hydrant
Overtime: Digs	1	6	6.00
	04-1500		
	No. of Hydrants	No. of Days to Complete	Avg. days per Hydrant
THIS AVERAGE DOES NOT INCLUDE THE 5 HYDRANTS THAT CWW HELD UP	82	1272	15.51

	No. of Hydrants	No. of Days to Complete	Avg. days per Hydrant
Waited on CWW (hydrant replacement)	5	408	81.60
Valve Problems	05-0797		
	05-0546		
	05-0400		
	05-0696		
	05-0284		

	No. of Hydrants	No. of Days to Complete	Avg. days per Hydrant
THIS AVERAGE DOES INCLUDE THE 5 HYDRANTS THAT CWW HELD UP	87	1680	19.31

	No. of Digs	No. of Days to Complete	Avg. days per Hydrant
Hydrant Too Low: Dug & Replaced	3	324	108.00
(NON-ESSENTIAL WORK)	05-0926		
	05-0200		
	04-1434		

12/15/2005

Hydrants That HCPW Maintains

March 1, 2006

TOWNSHIPS:	WATER PROVIDER	NO. of Hydrants
Anderson :	Cincinnati Water Works	2416
	Clermont Co. Water	30
	TOTAL:	2446
Colerain :	Cincinnati Water Works	2719
Columbia :	Cincinnati Water Works	218
Crosby :	Cincinnati Water Works	302
Delhi :	Cincinnati Water Works	1141
Green :	Cincinnati Water Works	2689
Harrison :	Cincinnati Water Works	39
Miami :	Cincinnati Water Works	544
Springfield :	Cincinnati Water Works	1646
	Wyoming Water	40
	TOTAL:	1686
Sycamore :	Cincinnati Water Works	1052
Symmes :	Cincinnati Water Works	624
	Loveland Water	209
	Indian Hill Water	34
	TOTAL:	867
Whitewater :	Cincinnati Water Works	95
	Miamitown	16
	TOTAL:	111
TOTALS:		13,814

Hydrants Repaired By Hamilton County Public Works Department

From: December of 2001

To: June 16, 2006

06/16/2006

TOWNSHIPS:	2001 (Dec.)	2002	2003	2004	2005	2006	TOTALS
Anderson	6	118	181	225	216	18	764
Colerain	4	187	217	214	193	49	864
Columbia	2	11	13	37	24	2	89
Crosby	1	14	15	72	107	9	218
Delhi	7	79	102	79	158	31	456
Green	7	218	412	552	303	90	1582
Harrison	0	0	1	27	18	0	46
Miami	0	6	41	100	64	5	216
Springfield	6	121	127	137	272	100	763
Sycamore	1	60	36	59	307	85	548
Symmes	1	50	59	77	211	90	488
Whitewater	0	3	2	32	4	4	45
TOWNSHIP TOTALS:	35	867	1206	1611	1877	483	6079
Village of Lockland	0	0	0	0	0	19	19
TOTALS:	35	867	1206	1611	1877	502	6098

142

THE BYRNES-CONWAY CO.

GENERAL CONTRACTORS
 80 OAK STREET (P. O. BOX 65)
 CINCINNATI, OHIO 45217

CARTHAGE PLAN
 821-3200

COM'RS MIN
 VOL. 176
 OCT 23 1974
 IMAGE 319

Springfield Township
 8375 Winton Road
 Cincinnati, Ohio 45231

DATE 11/23/73

YOUR ORDER NO.

TERMS: NET 30 DAYS

DATE	TICKET NO.	LBS.	TONS	Tax Ex. DESCRIPTION	UNIT PRICE	AMOUNT
------	------------	------	------	---------------------	------------	--------

October 22-25-26 & November 16: Replace fire hydrant and valve at Galbraith & Jadwin

	Labor	Equip	Mat'l
Foreman, 24 hrs @7.50	180.00		
Laborers, 72 hrs @6.74	485.28		
Truck Driver, 4 hrs @6.58	26.32		
Service Trucks, 40 hrs @1.00		40.00	
Dump Truck, 4 hrs @2.00		8.00	
Fire Hydrant, 1 each			304.70
6" Valve, 1 each			104.50
Valve Box, 1 each			64.90
6" C.I. Pipe, 7 lf @2.81			19.67
Bank Run, 9 ton @2.00			18.00
Cold Mix, 1/2 ton @10.00			5.00
Expansion Paper, 8 ft @0.20			1.60
Concrete, 3/4 cy @23.60			17.70
Permit Fee			4.00
	<u>691.60</u>	<u>48.00</u>	<u>540.07</u>

HCPW - REPLACEMENT F.H., DDG
 (2005) \$1540.45 (w/out ADMIN)
 \$1660.45 (w/ADMIN)

I & E	s/t	739.60
10% on Labor		69.16
	s/t	808.76
10% Overhead		80.88
	s/t	889.64
10% Profit		88.96
	s/t	978.60
Material		540.07

Total \$1518.67

RECEIVED
 SEP 10 1974

Harrison County Sanitary Engineers

CONTINUOUS CONCRETE • ASPHALT PRODUCTS • DRIVEWAY SEALER

ORIGINAL INVOICE

OFFICE
3450

THE ARMREL-BYRNES CO.

CARTHAGE PLANT
821-3200

GENERAL CONTRACTORS

50 OAK STREET (P. O. BOX 65)
CINCINNATI, OHIO 45217

Springfield Township
8375 Winton Road
Cincinnati, Ohio 45231

DATE 3/31/75

YOUR ORDER NO.

TERMS: NET 30 DAYS

Tax Ex.

DATE	TICKET NO.	LEB.	TONS	DESCRIPTION	UNIT PRICE	AMOUNT
------	------------	------	------	-------------	------------	--------

B/27-28/75: Repair fire hydrant--Cherry Blossom Lan.

Foreman, 11 hrs @16.00	\$176.00
Laborers, 33 hrs @11.80	389.40
Service Trucks, 22 hrs @2.50	55.00
Seat Ring, 1 each	46.12
Shoe, 1 each	141.08
Cover Plate Gasket, 2 ea @2.94	5.88
Balata Valve, 1 each	20.49
Bank Run, 4 ton @2.50	10.00

\$843.97

RECEIVED

APR 7 1975

SPRINGFIELD TOWNSHIP

HCPW - "MAJOR" REPAIR, DIG
(2005) \$ 702.72 (w/out admin)
\$ 820.77 (w/admin)

GENERAL OFFICE
242-3450

THE BYRNES-CONWAY Co.

CARTHAGE PLANT
821-3200

GENERAL CONTRACTORS
80 OAK STREET (P. O. BOX 65)
CINCINNATI, OHIO 45217

Delhi Township
D H Contracting
6808 Clough Pike
Cincinnati, Ohio 45244

DATE 7/31/74

YOUR ORDER NO.

TERMS: NET 30 DAYS

DATE	TICKET NO.	LBS.	TONS	DESCRIPTION	UNIT PRICE	AMOUNT
------	------------	------	------	-------------	------------	--------

7/30/74: Repair of fire hydrant at
239 Anderson Ferry Road

Foreman, 8 hrs @15.50	\$124.00
Laborers, 16 hrs @11.80	188.80
Service Trucks, 16 hrs @2.50	40.00
Stem, 1 each	38.77
Drip Valve, 1 each	33.83
Seat Ring, 1 each	45.91
Balata Valve, 1 each	17.95
Top Plate Gasket, 2 ea @1.30	2.60
Packing, 2 pcs @0.42	.84
Permit Fee	4.00
	<u>\$496.70</u>

HCPW - "Ave." REPAIR, NON-DIG
(2005) \$244.09 (w/OUT ADMIN)
\$270.68 (w/ADMIN)

TUMINOUS CONCRETE • ASPHALT PRODUCTS • DRIVEWAY SEALER • AGGREGATES

INVOICE NO.

FIRE HYDRANT MAINTENANCE COMPARISON DATA

Hamilton County, OH

Gary VanHart
Director, Public Works
513-946-4751

Cincinnati Water Works

Rick Merz
513-591-7919
Rick.Merz@cincinnati-oh.gov

Cleveland Water

Bill Dufford
Cleveland Water
216-664-2342
bill_dufford@clevelandwater.com

Franklin County, OH

Thomas Shockley
Director, Sanitary Engineer's Dept
614-462-3940
tdshockley@franklincountyohio.gov

SCOPE OF SERVICES

Jurisdictions	228 sq miles in the unincorporated areas of Hamilton County	City of Cincinnati, Arlington Heights, Lincoln Heights, Mason	City of Cleveland, 63 suburbs in Medina, Cuyahoga, Geauga and Summit counties. Approx. \$1.5 million customers over 640 sq miles. Approx 5,000 miles of water line	Unincorporated areas in 17 townships. Also agreements with Columbus for maintenance in four other subdivisions.
No. of hydrants	14,000	Approx 10,000 (Cincinnati)	18,000 in Cleveland, 79,000 total	622 hydrants
Brand of hydrants	Kennedy, Mueller	Kennedy, Mueller	Kennedy, Mueller, Clow, East Jordan, American Darling, AVK	Mueller, American Darling, Kennedy, Ad Woods, Eddy, Ludlow
System owner	Cincinnati Water Works	Cincinnati Water Works	Cleveland Water owns Cleveland lines, suburbs own their own lines. CW services and maintains lines	Own lines and hydrants in the direct billed areas. Columbus own other four subdivision lines.
Annual replacements	55	151 (Cincinnati)	200	80-100 repairs and replacements annually
Annual repairs	1,637	285 (repair), 386 (service)	500	See above
Total hydrant repair budget	\$609,205 (Nov 04-Oct 05)	Approx \$750,000	\$2 million in parts contract \$5 million in maintenance contract About 50% repairs other than hydrants	No data available
No. of staff	12 employees. A supervisor, a mechanic and 10 guys who spend approximately 60% of their time on hydrant repair and related shop activities.	5 employees - 3 on dig team and 2 on repair team spend 85-90% of their time on hydrant repairs	5 staff inspectors. Hydrant maintenance is all contracted. Four staff inspectors oversee contractors, one investigates new work before sending out maintenance crew.	1 FT (75% hydrant work) and 1 PT employee (25% hydrant work)
COST CONTROLS	Cross-train all employees to do multiple functions, to minimize down time Recycle parts: some we reuse, some we scrap for revenue Avoid buying bolts from hydrant manufacturers.	Don't try to repair old hydrants (Replace them instead.) Move the hydrants if they are getting hit repeatedly Use good replacement materials	Competitively bid contracts annually. County buys all of its own materials. Does not buy materials from maintenance provider.	Regular preventative maintenance Charge accident repairs to auto insurance Paint hydrants with high visibility paint Salvage parts
BENCHMARKING	Have compared with private plumbers for major repairs some time ago.	American Water Works Assn, but does not go to the detail of hydrant repairs. Find it difficult to compare because jurisdiction have very different procedures.	None.	None.
COSTS				
Included in costs	Maintenance workers hours, equipment and materials, administration	No fringe included, no markups, equipment includes fuel, maintenance, etc.	Includes CW inspector salaries and restoration	No prevailing wage (no bargaining unit in dept), includes \$200 for travel time
Replacement	\$1,300-\$1,540	\$2,139	Charge to car insurance for damaged hydrant: \$1700-2000 for replacement	\$1,723
Major, average, minor repairs	\$120-\$425	\$117 (minor), \$1,050 (major), assumes new parts are used (not salvaged parts)	No data available	Major: \$600-800 Average: \$200-275 Minor: \$50-130
EFFECTIVENESS	Priority repair (out of service): respond in 24 hrs, avg repair for non-dig in 0.83 days Non-priority: respond in 72 hrs, avg repair for non-dig in 0.29 days	Critical hydrants (two in a row, near school or hospital): 7 days Non-critical: 2 months, with less than 50 in system out of service.	Maintenance contracts provide for more crews if the amount of work increases.	Standard in 24 hours or less for repairs (unless special parts or full replacement). Most replacements in 24 hours.
CONTRACTED SERVICES	None.	None. Prevailing wage restrictions do not making contracting work cost effective.	All maintenance is contracted. Cost is higher than in-house staff, but the system size prevents in-house crews from keeping up with changing workloads. Four crews repair/replace 2-3 hydrants/day.	None.
PARTNERS	None. However work is sometimes delayed because some repairs and replacements require a response from Cincinnati Water Works.	None.	Buy vehicles off state contracts.	Work closely with fire depts. Engineer marks out of service hydrants with red or white collars
INNOVATIONS	See cost controls.	See cost controls.	About one year away from GIS system	Summer interns paint hydrants Have "hydrant truck" with truck-mounted crane and all necessary tools for repairs with minimum staff. (Cost \$34,000 five years ago. Replaced crane once. Current mileage: 126,000)
REVENUES	Water Works surcharge, county general fund. Also reimbursements from individuals who have hit hydrants	Rate payer supported.	Rate payer supported.	Rate payer supported. 10% surcharge for areas of Columbus that county does not bill direct.

FIRE HYDRANT MAINTENANCE COMPARISON DATA

Montgomery County, OH

Chuck Caskey
Sanitary Engineer's Office
937-781-2667
caskeyc@mcoho.org

Lucas County, OH

Jim Shaw
Sanitary Engineer
419-213-2926
jshaw@co.lucas.oh.us

Indianapolis, IN

Paul Grocki
Veolia Water Indianapolis
317-263-6586
paul.grocki@veoliawaterna.com

Mecklenburg County, NC

Ed Dehlin
Charlotte-Mecklenburg Utilities
Water Distribution
704-336-3843
cell: 704-634-6995
edehein@ci.charlotte.nc.us

SCOPE OF SERVICES

Jurisdictions	All county areas without their own water district. 10-12 townships and small cities.	Seven townships, three villages 300 miles of water main 23,000 customers	Veolia Water Indianapolis, LLC 4,145 miles of distribution piping, 310,290 active customer accounts in Indianapolis, Marion and seven (7) other surrounding counties,	County-wide. 700-800 sq miles. 3,400 miles of waterline
No. of hydrants	10,000 hydrants	5,000 hydrants	approx. 38,000 hydrants	25,000 hydrants
Brand of hydrants	Clow, Mueller, Kennedy, Waterless M&H	Kennedy, Mueller, American Darling	Mueller, Kennedy, American Darling, Waterous, US Pipe & Foundry, Smith, AVK, Eddy	Kennedy, Mueller, Clow, American Darling
System owner	County owns system	Own township systems, not villages. Toledo handles billing.	Consolidated City of Indianapolis, Department of Waterworks	Each municipality has own water system
Annual replacements	Approx 700 repairs and replacements annually (80% repair, 20% replacement)	50-75	96, no hydrants are out-of-service for more than 15 days	Less than 100
Annual repairs	See above	300	1,342, no hydrants are out-of-service for more than 15 days	No data available
Total hydrant repair budget	No data available	No data available	2005 Total Hydrant Repair Costs - \$264,914.34, which includes labor and materials for corrective maintenance, collision repairs et al, does not include equipment cost allocations	No data available
No. of staff	Six employees. Two truck drivers, two leaders, to maintenance workers. Latter four spend 90% of time on hydrants	Six employees spend most of their time on hydrants	11	Two-man repair crew in fours zones (20-30% of time on hydrants) Three-man replacement crew shared between zones 1&2 and zones 3&4 Work on both hydrants and mains
COST CONTROLS	Preventative maintenance Salvage materials	Concentrating on repair program rather than replacing everything Salvaging materials	all hydrants are tested annually, cost-benefit analyses of certain age hydrants, all hydrants that are replaced and/or destroyed are disassembled and certain parts are either reused or returned to the warehouse for credit	Crews perform multiple tasks Trained to recognize key problems
BENCHMARKING	None.	None.	AWWA Quaiserve Benchmarking Survey, quarterly internal performance measures, quarterly relational performance analyses, contractual incentives	None.
COSTS				
Included in costs	No data available	Include time & half, fringes. No admin time.	All labor, overhead, materials, equipment	Hydrant, labor & equipment, 50% overhead
Replacement	\$2,000-\$3,000	\$2,089	\$1,967 avg.	\$2,000-3,000
Major, average, minor repairs	No data available	\$200-300 to as much as \$1,000	avg. repair cost - \$197	No data available
EFFECTIVENESS	Turn around approx 30 work orders/week. Respond to struck hydrants in 24-48 hours.	Timely response to emergencies (out of service)	Monthly progress reports, weekly productivity reports, contract incentive reports, Supervisors "spot check" 10% of the completed work	Our of service - Respond in 1-2 days Minor repairs as can be fit in
CONTRACTED SERVICES	None.	Very rare. Only in there's a need to dig very deep holes (not usually an issue with hydrants)	None.	Very rare on hydrant work. Usually on mains in very big or deep holes necessary
PARTNERS	None.	None.	None.	None.
INNOVATIONS	None.	Use pickup trucks with generators and tools instead of equipment trucks One FTE that does routine search for damaged hydrants	all new hydrants are inspected for defects prior to installation/final connection, all hydrants are tested annually, all hydrant testing/repair data is tracked on a web-based GIS system (HYDRANT HOME)	None.
REVENUES	Rate payer supported. Set by City of Dayton, higher outside city according to pricing schedule from years ago	Rate payer supported.	Rate payer supported, contract incentives	Rate payer supported.

FIRE HYDRANT MAINTENANCE COMPARISON DATA

Dade County, FL
Miami-Dade Water & Sewer
305-889-5867/66
305-805-4577
Dennis Terry/David Bridges
dbrid@miamidade.gov

Phoenix, AZ
Phoenix Water Services Dept
Tina Meron, 602-534-3927
tina.meron@phoenix.gov

SCOPE OF SERVICES

Jurisdictions	Miami-Dade County, City of Miami, City of Coral Gables 5,600 miles of water main	City of Phoenix, 540 sq miles Four maintenance programs: 1 - Water main relocation program 2 - Fire hydrant replacement program 3 - Customer/Fire/Police reports 4 - Maintenance crew reviews
No. of hydrants	Miami-Dade (28,000), City of Miami (5,000), Coral Gables (1,400) - 34,400 total	46,000
Brand of hydrants	Kennedy, Clow, American Darling, Mueller, some old US Foundry	All major brands
System owner	Own metro Dade and City of Miami	City of Phoenix
Annual replacements	Approx 1000 major repairs & replacements	50-100 replacements in-house but varies substantially year to year. Mostly replace hydrants.
Annual repairs	Approx 1,700	See above
Total hydrant repair budget	2004-05 budget is \$1.598 million for personnel, salaries, overhead, materials, supplies, etc.	No data available. Varies substantially depending on which area of the system is address by hydrant replacement plan in a given year.
No. of staff	10 current staff (budgeted for 12). 2 supervisors/foremen, 4 pipe fitters, 2 operators, 3 maintenance repair, 1 semi-skilled labor	Nine yards, 25-30 staff on weekdays, 10-15 nights/weekends. Three shifts/day. About 5% or less time spent on hydrants.

COST CONTROLS

All maintenance in-house (no contracting out) Recover and salvage parts Recover all costs related to hit hydrants resulting from vehicle accidents (bill insurance companies)	Bid programs 1 & 2 to private contractors. Low bidder gets the project.
---	---

BENCHMARKING

None.	None.
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COSTS

Included in costs	No data available	Time and materials, traffic control inspections, fringe and overhead
Replacement	No data available	Approx \$1,200 for replacement + \$700 for the hydrant
Major, average, minor repairs	Average minor repairs: \$100-500	No data available

EFFECTIVENESS

Database time between requests and repairs Nov 05: Major repair in 12 days Priority to out-of-service hydrants	Assign priority to assignments, ie large leaks, safety to citizens, etc. Most all repairs on 2-3 days
--	--

CONTRACTED SERVICES

None.	Contract programs 1 & 2. Hydrant replacement program is based on which parts of the system have the most need. Cost is a little more than in-house, but saves on time, and is a proactive approach to hydrant work.
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PARTNERS

Add 5% to cost for Coral Gables work	None.
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INNOVATIONS

Electronic notification to dispatch center with database, web-based GIS system with location, hydrant type and number	None.
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REVENUES

Rate payer supported. \$2.00 surcharge per account includes all maintenance and capital costs.	Rate payer supported.
---	-----------------------

Type of Repairs

Minor Repairs:

- 1) Check: -run full check on hydrant
- 2) Cap Leak: -replace cap gasket
- 3) Chains: -repair chains

Average Repairs:

- 1) Leaker: -replace: main valve; stem; drip valve; seat ring
- 2) Bonnet Leak: -rebuild top plate, clean & lube operating nut
- 3) Hard to Open: -replace top plate gasket, clean & lube operating nut

Major Repairs:

- 1) Struck: -replace collision kit & reset top section
- 2) Leaker/Frozen: -thaw hydrant, replace: main valve; stem; drip valve; seat ring
- 3) Raises: -install 6" or 12" extension

Notes: All hydrants receive the following work:

- pumped out
- caps (cleaned and lubed)

3/17/06

Hydrant Quote

Date: Jan, 2006Location: Gr. Cinti. Water WorksContact: Rick MerzOffice No.: 591-7919/378-0667 (cell)

COST	
Labor	<u>\$698.81</u>
Quoted \$469 without benefits	
Added 49% for benefits	
Equipment	<u>\$298.00</u>
Material	<u>\$1,142.00</u>
Includes restoration & misc. items	
TOTAL COST:	<u>\$2,138.81</u>

QUESTIONS	
Is this a Dig:	<u>Yes</u>
Hours:	<u>8 +/-</u>
Crew Size:	<u>3-Men</u>
Benefits Included:	<u>Not in actual quote</u>
Admin. Cost Included:	<u>No</u>
Travel Time Included:	<u>Yes</u>
Labor per hr. per employee -	
Backhoe Digs:	<u></u>
Hand Digs:	<u></u>
No. of Replacements per yr.	<u></u>
Dump Tr. per hr. \$	
Service Tr. per hr. \$	
Backhoe per hr. \$	
Drag per hr. \$	
Hydrant Cost: *	<u>\$700.00</u>
Type of Hydrant:	<u>Mueller</u>
*See S. Baker e-mail	
No. of hydrants in System:	<u>10,000 +/-</u>

From: Baker, Sherry
Sent: Friday, February 03, 2006 4:47 PM
To: VanHart, Gary
Cc: Leedy, Jeff
Subject: Mueller Pricing

Gary

I spoke with Bernie McCormick from Hughes Supply today. I told him about the concern you have about CWW purchasing Mueller hydrants at \$700 when we are being charged \$950.00.

Per Bernie, Mueller lowballed the price to be included in the City's consideration of fire hydrants. That price will not hold up on next bid. He said that if you have more concerns regarding this to please give him a call. His cell phone # is 535-7880.

Baker

Hydrant Quote

Date: 3 / 01 / 2006Location: Franklin CountyContact: Thomas ShockleyOffice No.: (614) 462- 4524 Cell: 205-4781

COST		QUESTIONS	
Labor	<u>\$396.00</u>	Is this a Dig:	<u>Yes</u>
		Hours:	<u>5.5</u>
		Crew Size:	<u>3</u>
		Benefits Included:	<u>Yes</u>
		Admin. Cost Included:	<u>No</u>
		Travel Time Included:	<u>No</u>
		Labor \$ 23.00 per hr. Operator \$ 26.00 per hr.	
Equipment	<u>\$426.80</u>	Backhoe Digs:	<u>100 %</u>
		Hand Digs:	<u>0 %</u>
		No. of Replacements per yr.	<u>10 to 15</u>
		Dump Tr. \$ 25.50 per hr. Service Tr. \$ 22.50 per hr. Backhoe \$ 19.70 per hr. Drag \$ 9.90 per hr.	
Material	<u>\$900.00</u>	Hydrant Cost:	<u>\$825.00</u>
		Type of Hydrant:	<u>same</u>
TOTAL COST:	<u>\$1,722.80</u>		
		No. of hydrants in System:	<u>622</u>

Hydrant Quote

Date: 2 / 28 / 2006Location: Lucas CountyContact: Mr. Shaw (Bob Lulfs)Office No.: (419) 213-2926

COST	
Labor	<u>\$594.00</u>
Equipment	<u>\$495.00</u>
Material	<u>\$1,000.00</u>
TOTAL COST:	<u>\$2,089.00</u>

QUESTIONS	
Is this a Dig:	<u>Yes</u>
Hours:	<u>5.5</u>
Crew Size:	<u>4</u>
Benefits Included:	<u>Yes</u>
Admin. Cost Included:	<u>No</u>
Travel Time Included:	<u>Yes</u>
Labor \$ 27.00 per hr. per employee	
Backhoe Digs:	<u>95 %</u>
Hand Digs:	<u>5 %</u>
No. of Replacements per yr.	<u>50 to 75</u>
Dump Tr. \$ 30.00 per hr. Service Tr. \$ 25.00 per hr. Backhoe \$ 25.00 per hr. Drag \$ 10.00 per hr.	
Hydrant Cost:	<u>\$900.00</u>
Type of Hydrant:	<u>same</u>
No. of hydrants in System: <u>5000</u>	

Hydrant Quote

Date: 3 / 16 / 2006Location: Hamilton County

*90 Excavated Fire Hydrants at 2006 Rates (60 are dug with a backhoe; 30 are dug by hand)

Contact: Robert K. SturgillOffice No.: (513) 946 - 8955

COST		QUESTIONS	
Labor	<u>\$499.82</u>	Is this a Dig:	<u>Yes</u>
		Hours:	<u>7.2</u>
		Crew Size:	<u>3</u>
		Benefits Included:	<u>Yes</u>
		Admin. Cost Included:	<u>No</u>
		Travel Time Included:	<u>Yes</u>
		Labor \$ 23.14 per hr. per employee	
Equipment*	<u>\$558.72</u>	Backhoe Digs:	<u>60</u>
		Hand Digs:	<u>30</u>
		No. of Replacements per yr.	<u>55</u>
		Dump Tr. \$ 25.50 per hr. Service Tr. \$ 22.50 per hr. Backhoe \$ 19.90 per hr. Drag \$ 9.90 per hr.	
Material	<u>\$1,000.00</u>	Hydrant Cost:	<u>\$949.00</u>
		Type of Hydrant:	<u>same</u>
TOTAL COST:	<u>\$2,058.54</u>		

No. of hydrants in System: 14,000

Hydrant Quote

Date: 3 / 16 / 2006Location: Hamilton County

*60 Excavated Fire
Hydrants at 2005 Rates
(These are dug with a
backhoe)

Contact: Robert K. SturgillOffice No.: (513) 946 - 8955

COST		QUESTIONS	
Labor	<u>\$330.45</u>	Is this a Dig:	<u>Yes</u>
		Hours:	<u>5</u>
		Crew Size:	<u>3</u>
		Benefits Included:	<u>Yes</u>
		Admin. Cost Included:	<u>No</u>
		Travel Time Included:	<u>Yes</u>
		Labor \$ 22.03 per hr. per employee	
Equipment*	<u>\$210.00</u>	Backhoe Digs:	<u>60</u>
		Hand Digs:	<u>0</u>
		No. of Replacements per yr.	<u>55</u>
		Dump Tr. \$ 10.00 per hr. Service Tr. \$ 8.00 per hr. Backhoe \$ 20.00 per hr. Drag \$ 4.00 per hr.	
Material	<u>\$1,000.00</u>	Hydrant Cost:	<u>\$949.00</u>
		Type of Hydrant:	<u>same</u>
TOTAL COST:	<u>\$1,540.45</u>		

No. of hydrants in System: 14,000

Hydrant Contractors

- | | |
|-----------------------------------|--------------|
| 1. Hermann Plumbing | 513-931-2830 |
| 2. Holthaus Plumbing | 513-761-1238 |
| 3. AA Plumbing Inc. | 513-771-1888 |
| 4. Allgeier & Son Inc. | 513-574-3735 |
| 5. Ford Development Corp. | 513-772-1521 |
| 6. Dick Scott Plumbing Inc. | 513-921-2254 |
| 7. Nelson Stark
(Todd Elliott) | 513-489-0866 |
| 8. TJ Dyer Co.
(Joe Mirlasena) | 513-396-5900 |

ANNUAL COST COMPARISON OF FIRE HYDRANT MAINTENANCE

Department of Public Works vs. RFQ Respondents

Description of Fire Hydrant Repair	Annual Quantity	Public Works		Nelson Stark			Ken Neyer Plumbing		
		Unit Cost	Annual Cost	Unit Cost	Annual Cost	Annual Difference	Unit Cost	Annual Cost	Annual Difference
Replace Fire Hydrant	55	\$2,369	\$130,295	\$4,700	\$258,500	+ \$128,205	\$3,943	\$216,838	+ \$86,543
Raise Fire Hydrant	375	\$417	\$156,323	\$3,200	\$1,200,000	+ \$1,043,678	\$735	\$275,625	+ \$119,303
Replace Fire Hydrant Stem	145	\$424	\$61,435	\$3,200	\$464,000	+ \$402,565	\$770	\$111,650	+ \$50,215
Replace Fire Hydrant Seat Ring	145	\$424	\$61,435	\$2,000	\$290,000	+ \$228,565	\$685	\$99,325	+ \$37,890
Replace Fire Hydrant Mail Valve	145	\$424	\$61,435	\$3,500	\$507,500	+ \$446,065	\$594	\$86,130	+ \$24,695
Replace Fire Hydrant Drip Valve	145	\$424	\$61,435	\$3,000	\$435,000	+ \$373,565	\$649	\$94,105	+ \$32,670
Replace Fire Hydrant Cap	341	\$120	\$40,889	\$200	\$68,200	+ \$27,311	\$458	\$156,178	+ \$115,289
Replace Fire Hydrant Chain	341	\$120	\$40,889	\$200	\$68,200	+ \$27,311	\$291	\$99,231	+ \$58,342
Total	1,692		\$614,136		\$3,291,400	+ \$2,677,264		\$1,139,082	+ \$524,945